MOTEL VILLAGE/ BANFF TRAIL
AREA REDEVELOPMENT PLAN-

NORTHWEST LRT ALIGNMENT EVALUATION STUDY
(BETWEEN 19th ST N.W. & THE UNIVERSITY OF CALGARY)

Prepared by
Planning & Building Department
and
Transportation Department
City of Calgary

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

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SUMMARY OF COMPARISON OF NORTHWEST LRT ALTERNATIVE ALIGNMENTS IN THE MOTEL VILLAGE/BANFF TRAIL AREA

(Between 19th Street and The University of Calgary)*

	ALTERNATIVE #1 BANFF TRAIL (1A HIGHWAY) ALIGNMENT	ALTERNATIVE #3 16 AVENUE ELEVATED - MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE #5 BASED ON "DAMAS & SMITH" ALIGNMENT
COMMUNITY IMPACTS AND LAND USE IMPLICATIONS	BANFF TRAIL o Impact from station related activities; increased pedestrian traffic, possible increase in vehicular traffic from drop-offs; possible overspill parking from station. o Overspill parking can be mitigated by residential parking zone. o Redevelopment pressures likely to continue if public's perceptions about L.R.T. impacts do not change. o Land use change unlikely if Council adopts a "conservation policy" for the area. MOTEL VILLAGE o L.R.T. station could provide additional impetus for land use change. o High density redevelopment not feasible due to access constraints and potential negative impacts to abutting community. o Maximum office development potential - 1.2 million sq.ft. based on Stage II road network (upgraded Crowchild Trail and 16 Avenue N.).	BANFF TRAIL o Impact from station related activities reduced (some increase in pedestrian and vehicular traffic; overspill parking unlikely because of increased distance to station). o Redevelopment pressures due to L.R.T. likely to be reduced due to distance to station. o Land use change unlikely if Council adopts a "conservation policy" for the area. MOTEL VILLAGE o L.R.T. impact reduced due to distance to station. o High density redevelopment not feasible due to access constraints and potential negative impacts to abutting community. o Office development potential same as #1.	BANFF TRAIL o Impact from station related activities less than #1 but greater than #3 (some increase in pedestrian and vehicular traffic; possible overspill parking from station). o Redevelopment pressures likely to continue due to proximity of station to community. o Land use change unlikely, if Council adopts a "conservation policy" for the area. MOTEL VILLAGE o L.R.T. station could provide additional impetus for land use change (same as #1). o Redevelopment potential is limited similar to #1 and #3. o Office development potential same as #1.

*Impacts detailed relate to interim or Stage I conditions i.e. no upgrading on 16 Avenue N. or Crowchild Trail except where roadworks are needed as part of alignment requirements.

	ALTERNATIVE #1 BANFF TRAIL (1A HIGHWAY) ALIGNMENT	ALTERNATIVE #3 16 AVENUE ELEVATED - MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE #5 BASED ON "DAMAS & SMITH" ALIGNMENT
COMMUNITY IMPACTS AND LAND USE DESIGNATIONS (Cont'd)	BRIAR HILL o No impact.	BRIAR HILL o Impact to existing service road, and possible loss of two houses to provide left turn on 16 Avenue N. at 1A Highway.	BRIAR HILL o Same as #3.
VISUAL IMPACTS	BANFF TRAIL o Visual intrusion of open station, pedestrian overpass (6 m. above Capitol Hill Crescent) and LRT catenary. o Opportunity for minimizing visual impact by landscaping and berming. BRIAR HILL o Visual impact with L.R.T. at-grade on north side of 16 Avenue N. MOTEL VILLAGE o Station area, pedestrian overpass and L.R.T. catenary system are visible to Motel Village area.	BANFF TRAIL o Visual impact with L.R.T. at-grade in median of 16 Avenue N. BRIAR HILL o Visual intrusion to residences between 1A Highway and Crowchild Trail due to elevated L.R.T. structure (distance from 16 Avenue N. to top of rails at highest point - approx. 8m.) MOTEL VILLAGE o Visual impact to motel/hotel users due to elevated structure. o Visibility of some businesses to travelling public may be affected by elevated structure along 16 Avenue.	BANFF TRAIL o Same as #3. BRIAR HILL o Same as #3 except that rails on structure are approximately 10 m. from 16 Avenue N. at highest point. MOTEL VILLAGE o Same as #3.
ACCESS	MOTEL VILLAGE o Existing access can be improved by providing another all turns signalized intersection at 1A Highway/16 Avenue N.	MOTEL VILLAGE o Two-way service road becames one way westbound on 16 Avenue. o Access to/from 16 Avenue via two new signalized intersections replacing existing signalized intersection. o Access to some businesses along 16 Avenue N. less direct than existing from the west.	MOTEL VILLAGE o Access to/from 16 Avenue same as #3 except left turns to/from Crowchild southbound to Motel Village are eliminated. o Access to some businesses along 16 Avenue N. less direct than existing from the west.

	ALTERNATIVE #1 BANFF TRAIL (1A HIGHWAY) ALIGNMENT	ALTERNATIVE #3 16 AVENUE ELEVATED - MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE #5 BASED ON "DAMAS & SMITH" ALIGNMENT
TRANSIT OPERATIONS	o Station more attractive for walk-on ridership from community. o Longer walking distance (250 m.) for transit users with station in Motel Village and other transit related facilities (park'n'ride, kiss'n'ride, feeder bus terminus) located in Stadium area. o Some buses will stop on Crowchild Trail.	o Station and all its transit related facilities are located on same site. o Some buses will stop on Crowchild Trail.	o Station in Crowchild median is approximately 70 m. away from its transit related facilities. o Some buses will stop on Crowchild Trail.
PROPERTY REQUIREMENTS	o No additional private land acquisition required. o Land required from University of Calgary for L.R.T. and Crowchild Trail r.o.w. north of 24 Avenue N.	o Negotiations with University required for station and L.R.T. r.o.w.in Stadium area and University of Calgary. o Two residential houses from Briar Hill required to provide eastbound left turn on 16 Avenue N. at Highway 1A.	o Negotiations with University required for additional land from Stadium area to accommodate L.R.T. and relocated Crowchild Trail. o 9 homes, a church, 2 motels and one restaurant required for L.R.T. alignment and associated roadworks.
CONSTRUCTION DISRUPTION	o Over one construction season along 1A. Noise/vibration annoyance due to heavy equipment operation. Localized pile driving in tunnel and station areas. Structural damage unlikely.	o Over two construction seasons along 16 Avenue. Traffic disruption due to detours. Noise/vibration annoyance due to heavy equipment operation. Structural damage may occur in Briar Hill if pile driving is required.	o Same as #3 except that additional disruption will be experienced along Crowchild and at intersection of 24 Avenue and Crowchild Trail N.W.
IMPACT TO McMAHON STADIUM AREA	o No impact on parking. o Expanded McMahon Stadium benefits from L.R.T.	o Approximately 250 parking stalls with station outside McMahon expansion. o Parking could be replaced on site by the construction of a parking structure. o Expanded McMahon Stadium benefits from L.R.T.	o No left turns to/from Crowchild northbound. o Maximum reduction of 930 parking stalls. Parking could be replaced by the construction of a structure. o Expanded McMahon Stadium benefits from L.R.T.
TOTAL COST	$45.6 million	$50.9 million (potential additional costs for providing parking structure) ★	$69.1 million (potential additional costs for providing parking structure).

★ Future costs for tunnel to re-enter Crowchild median in Alternative #3 - $5 to $6 M.

1. INTRODUCTION

At the January 20, 1984 meeting of City Council the following Commissioners' recommendation was adopted:

"That Council adopt Alderman Baxter's resolution:

1. that the Land Use Study presently underway be extended to include the Banff Trail community and be incorporated into an Area Redevelopment Plan for the area; and

2. that as part of the preparation of the A.R.P. a study of the implications of the two alternative L.R.T. alignments proposed for the area be completed and brought to Council for direction as to which alignment should be incorporated into the A.R.P."

In response to Council's directive, and as part of the preparation of the A.R.P., the Transportation and the Planning & Building Departments have undertaken a comparative study of the implications of the alternative alignments for the Northwest Light Rail Transit in the Motel Village/Banff Trail area between 19th Street N.W. and the University of Calgary. This study has included the evaluation of not only the Banff Trail (1A Highway) and "Damas & Smith" routes but also other alignments which may also be feasible.

2. PURPOSE

The purpose of this study is to identify and evaluate the various implications of the alternative L.R.T. alignments in the Motel Village/Banff Trail area and to examine the land use, community, environmental, transportation and financial impacts. This will enable City Council to make a decision as to which alignment should be proceeded with and, accordingly, incorporated in the Motel Village/Banff Trail Area Redevelopment Plan currently being prepared by the Planning & Building Department.

3. STUDY APPROACH

The evaluation of the alignments was carried out by the Transportation and the Planning & Building Departments in consultation with the Motel Village/Banff Trail A.R.P. Community Planning Advisory Committee. The specific alignments examined included the following:

a) Alternative #1 - Banff Trail (1A Highway) Alignment;

b) Alternative #2 - 16 Avenue Underground - in Crowchild Median;

c) Alternative #3 - 16 Avenue Elevated - Modified Mayor's Task Force;

d) Alternative #4 - "Modified" Crowchild Alignment (upgrading along Crowchild and 16 Avenue);

e) Alternative #4A - "Modified" Crowchild Alignment (upgrading along 16 Avenue only);

f) Alternative #5 - Based on "Damas & Smith" Alignment.

Due to very high construction costs, difficulties in construction staging, and other design implications in specific areas Alternatives #2, #4 and #4A were excluded from detailed analysis, thus the report will only present a comparative analysis of Alternatives #1, #3 and #5.

Three alternatives were presented to an open house and community meeting on October 20, 1984. At that time, a survey was undertaken to determine which options were preferred by those in attendance. The results of this survey are summarized in Section 7 on Page 29.

4. ALIGNMENT DESCRIPTION

This section describes the physical components and roadway improvements associated with each of the LRT alignment alternatives which were considered. Exhibit 1 shows the three alternatives under review while Exhibits 2, 3 and 4 show each alternative individually.

4.1 Alternative 1: Banff Trail - 1A Highway Alignment

a) **Alignment Description:**

L.R.T. passes under 19 Street W. at 16 Avenue N., leaves the tunnel section on the north side of 16 Avenue N., follows the Banff Trail (1A Highway) alignment to 24 Avenue N., passes under 24 Avenue N. at Crowchild Trail, leaves the tunnel section and then continues north in the median of Crowchild Trail.

The Motel Village/McMahon Station is located on Banff Trail just south of 23 Avenue N. The University Station is located in the median of Crowchild Trail between Exshaw Road and Castle Road.

b) **Network Characteristics:**

Stage I*

1. 16 Avenue N.W. between 19 Street W. and Crowchild Trail remains as existing.

2. Existing 16 Avenue/Motel Village N.W. signalized intersection will continue to provide single left turn to/from 16 Avenue eastbound.

3. Banff Trail to be removed. Service road to be reconstructed on the west side of L.R.T. alignment and will continue to carry 2 way traffic, similar to the existing operation.

4. 16 Avenue/Banff Trail service road intersection will be reconstructed to allow single left turns to/from 16 Avenue eastbound.

5. Crowchild Trail between 16 Avenue N. and 24 Avenue N. remains a 6 lane divided roadway with 2 way service road on east side for Motel Village.

6. No change to 16 Avenue/Crowchild Trail N.W. interchange.

7. Reconstructed service road on west side of L.R.T. will connect to Crowchild Trail via 23 Avenue N. instead of the existing intersection north of 23 Avenue N.

8. 24 Avenue/Crowchild Trail N.W. intersection remains as existing (at-grade).

9. North of 24 Avenue N. to just south of 32 Avenue N. (Charleswood Drive), Crowchild Trail southbound will be reconstructed to accommodate the L.R.T. alignment in the median.

10. No change to 16 Avenue/19 Street N.W.intersection.

Stage II**

1. Upgrading of Crowchild Trail between 16 Avenue N. and 24 Avenue N. with C-D road system and interchanges at both 16 Avenue N. and 24 Avenue N.

2. Widening and upgrading of 16 Avenue N. between 19 Street W. and Crowchild Trail. Additional land will be required from either north or south of existing right-of-way (for 6 lane facility). Existing 16 Avenue/Motel Village N.W. signalized intersection will permit right-in, right-out access only. Traffic signal will be removed.

3. 16 Avenue/Motel Village service road signalized intersection as discussed in Stage I will be removed.

4. Dual left turns could be provided at 16 Avenue/Banff Trail N.W. (reconstructed) intersection for 16 Avenue eastbound and Banff Trail southbound.

4.2 Alternative 3: 16 Avenue Elevated - Modified Mayor's Task Force Alignment

a) **Alignment Description:**

L.R.T. passes under 19 Street W. at 16 Avenue N., leaves the tunnel section in the median of 16 Avenue N., continues west along 16 Avenue N. and crosses Banff Trail intersection at-grade, runs on an elevated structure across the westbound lanes of 16 Avenue N. and Crowchild Trail into McMahon Stadium, continues north at-grade in front of McMahon Stadium and crosses 24 Avenue N. at-grade, runs between the L.D.S. church and the University of Calgary parking lot to the west side of Crowchild Trail, and then continues north along the west side of Crowchild Trail.

The Motel Village/McMahon Station is located in front of McMahon Stadium east entrance and can possibly be integrated with the concourse. The University Station is located on the west side of Crowchild Trail, at approximately Exshaw Road.

b) **Network Characteristics:**

Stage I*

1. Widening of 16 Avenue N.W. within existing right-of-way to accommodate L.R.T. in median. 16 Avenue N. will be 3 lanes westbound and 2 lanes eastbound with removal of Motel Village service road.

2. Existing 16 Avenue/Motel Village N.W. signalized intersection will be removed.

3. Banff Trail between 16 Avenue N. and Crowchild Trail remains as existing.

4. 16 Avenue/Banff Trail N.W. intersection will be modified to allow left turns from Banff Trail southbound to 16 Avenue eastbound only (Eastbound left turns from 16 Avenue N. to Banff Trail can be provided if a portion of the Briar Hill service road is utilized).

5. Crowchild Trail between 16 Avenue N. and 24 Avenue N. remains a 6 lane divided roadway with two-way service road on east side of Motel Village. North of 24 Avenue N., Crowchild Trail remains a 4 lane divided roadway.

6. No change to 16 Avenue/Crowchild Trail N.W. interchange.

7. 24 Avenue/Crowchild Trail N.W. intersection remains as existing (at-grade).

8. 16 Avenue/Motel Village service road intersection (west side of Motel Village) will be modified and signalized to allow single left turn to/from 16 Avenue eastbound.

9. L.R.T. (structure) will be elevated, crossing the westbound lanes of 16 Avenue N. and Crowchild Trail to McMahon Stadium. L.R.T. runs at-grade through McMahon Stadium and at-grade across 24 Avenue N. and along the west side of Crowchild Trail.

10. No change to 16 Avenue/19 Street N.W. intersection.

Stage II**

1. Upgrading of Crowchild Trail North of 16 Avenue N. with C-D road system and interchanges at both 16 Avenue N. and 24 Avenue N. L.R.T. can enter median of Crowchild Trail via tunnel section just south of 32 Avenue N.

2. Widening and upgrading of 16 Avenue N. between 19 Street W. and Crowchild Trail to 6 lanes. Additional land will be required from south of existing right-of-way.

3. 16 Avenue/Motel Village service road signalized intersection as described in Stage I will be removed.

4. Dual left turns could be provided at 16 Avenue/Banff Trail intersection for 16 Avenue eastbound and Banff Trail Southbound.

4.3 Alternative 5: Based on 'Damas and Smith' Crowchild Trail Alignment

a) **Alignment Description:**

L.R.T. passes under 19 Street W. at 16 Avenue N.,leaves the tunnel section in the median of 16 Avenue N., continues west along 16 Avenue N. and crosses Banff Trail intersection at-grade, runs on an elevated structure across the westbound lanes of 16 Avenue N. and the northbound lanes of Crowchild Trail and enters the median of Crowchild Trail, runs in the median of Crowchild Trail and crosses 24 Avenue N. intersection at-grade; then continues north in the median of Crowchild Trail.

The Motel Village/McMahon Station is located in the median of Crowchild Trail just north of 23 Avenue N. The University Station is located in the median of Crowchild Trail between Exshaw Road and Castle Road.

b) **Network Characteristics:**

Stage I*

1. Widening of 16 Avenue N. between 19 Street W. and Crowchild Trail to 3 lanes westbound and 2 lanes eastbound and L.R.T. in median. Motel Village service road along 16 Avenue N. to be removed.

2. Existing 16 Avenue/Motel Village N.W. signalized intersection will be removed.

3. Banff Trail between 16 Avenue N. and Crowchild Trail remains as existing.

4. 16 Avenue/Banff Trail N.W. intersection will be modified to allow left turns from 1A Highway southbound to 16 Avenue eastbound only (Eastbound left turns from 16 Avenue N. to Banff Trail could be provided if a portion of the Briar Hill service road is utilized).

5. Widening of Crowchild Trail between 16 Avenue N. and 32 Avenue N. with L.R.T. in median.

6. 24 Avenue/Crowchild Trail N.W. intersection will be rebuilt to the west and grade lowered on 24 Avenue N. L.R.T. and will operate at-grade across the intersection.

7. 16 Avenue/Motel Village service road intersection (West side of Motel Village) will be signalized to allow single left turn to/from 16 Avenue eastbound.

8. No change to 16 Avenue/19 Street N.W. intersection.

Stage II**

1. Construct C-D road system on Crowchild Trail between 16 Avenue N. and 32 Avenue N. but service road for Motel Village will be eliminated.

2. Upgrading of 16 Avenue/Crowchild Trail interchange to a single point diamond interchange.

3. Construct interchange at 24 Avenue/ Crowchild Trail N.W.

4. Widening and upgrading of 16 Avenue N. between 19 Street W. and Crowchild Trail to 6 lane facility. Additional land will be required from south of existing right-of-way.

5. 16 Avenue/Motel Village service road signalized intersection as described in Stage I will be removed.

6. Dual left-turns could be provided at 16 Avenue/Banff Trail intersection for 16 Avenue eastbound on 1A Highway southbound.

5. ALIGNMENT EVALUATION CRITERIA

Every possible effort was made to define the criteria used, although some overlap was inevitable. The criteria used in the evaluation are listed below and the definitions for each criteria are set out in the evaluation matrix in Section 6.

* Stage I - to be built in conjunction with L.R.T. construction.

** Stage II - possible future upgrading. Note that Stage II conditions could change over time with new design, Council policies, etc.

(1) Land Use Impacts

a) Compatibility with Approved Policies
b) Development Potential/Opportunities
c) Potential Change of Uses
d) Station Design/Integration
e) Displacement of Existing Businesses and/or Residences
f) Impact on Open Space and/or Community Facilities

(2) Community Impacts

a) Redevelopment Pressure/Neighbourhood Stability
b) Community Integration/Severance
c) Shortcutting, Through Traffic and Spillover Parking
d) Business and/or Community Disruption during the Construction Phase

(3) Environmental Impacts

a) Noise
b) Vibration
c) Visual

(4) Transportation Impacts

a) Associated Roadway Improvements and Their Effects on the Arterial Network and Local Access
b) L.R.T. Operation
c) Feeder Bus Services
d) Transit Ridership

(5) Financial Implications

6. ALIGNMENT EVALUATION BETWEEN 19TH STREET N.W. & THE UNIVERSITY OF CALGARY

This section evaluates the three alternative L.R.T. alignments in the vicinity of the Motel Village/Banff Trail Area Redevelopment Plan Study Area in accordance with each criterion. A short outline of the existing conditions is provided where appropriate to explain the framework within which each criterion was appraised. The baseline conditions for Motel Village and Banff Trail community are detailed more clearly in Appendix I (Background Information).

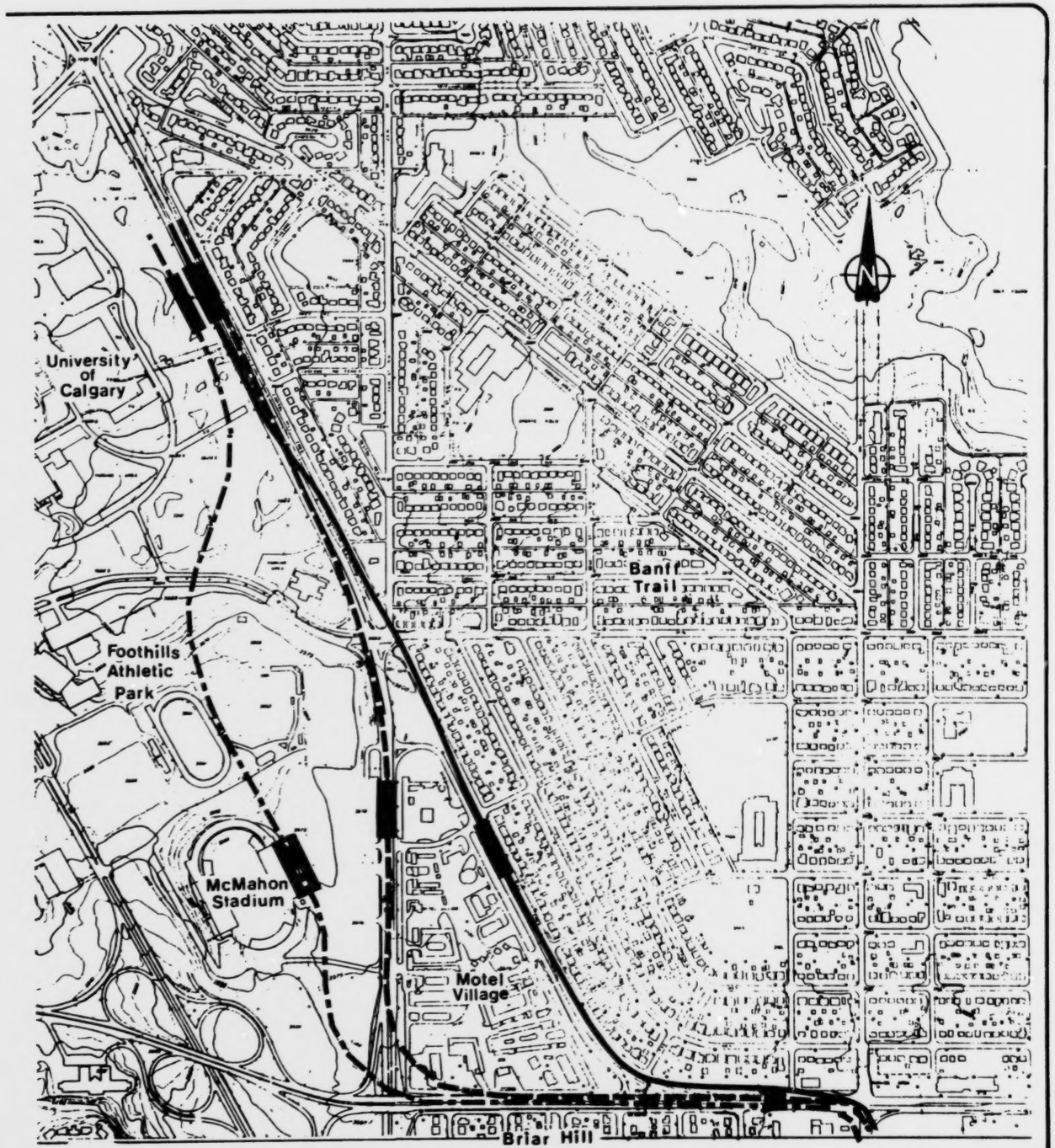

Exhibit 1

MAP No. 1

TITLE
L.R.T. ALTERNATIVE ALIGNMENTS UNDER REVIEW

LEGEND

- Alternative 1. Banff Trail–1A Highway Alignment
- Alternative 3. 16 Avenue Elevated – Modified Mayor's Task Force
- Alternative 5. Based on "Damas and Smith" Alignment
- L.R.T. Alignment & Stations

DATE
October 1984

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

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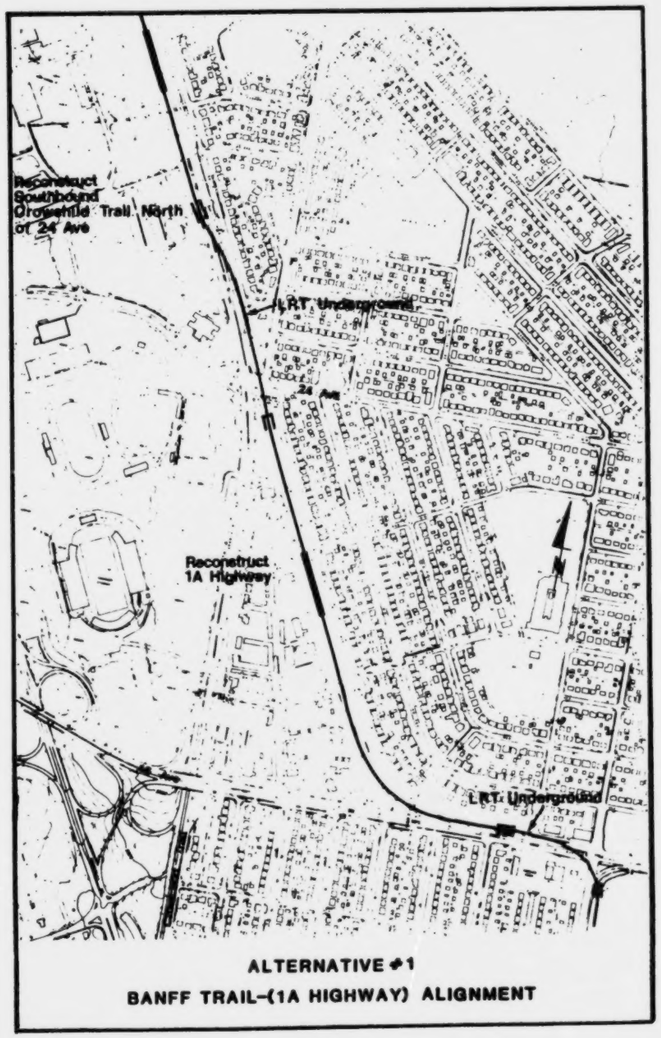
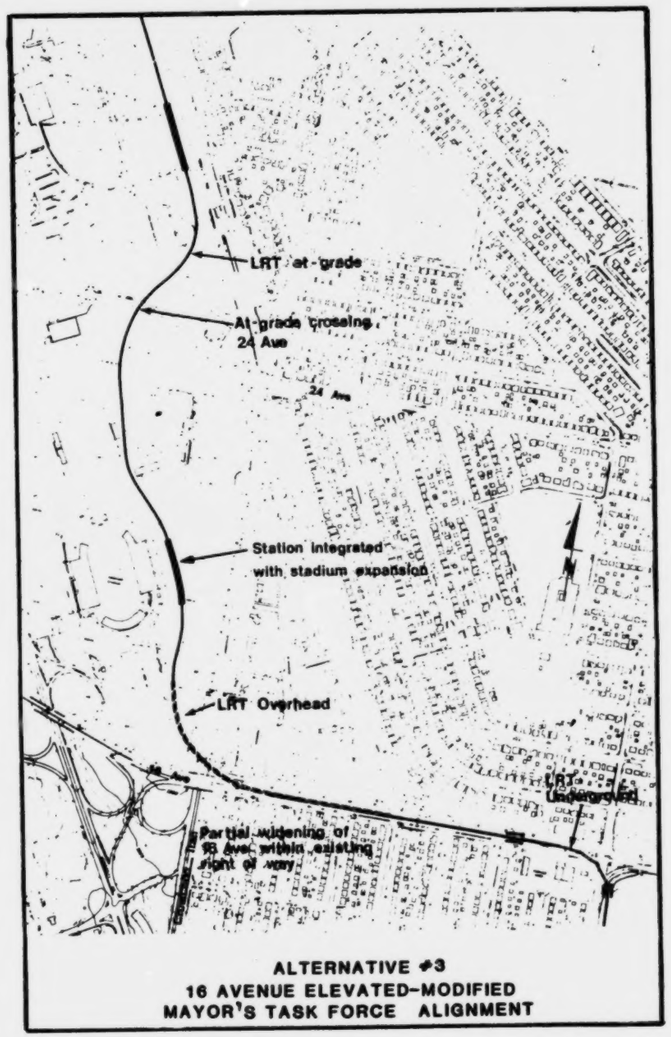


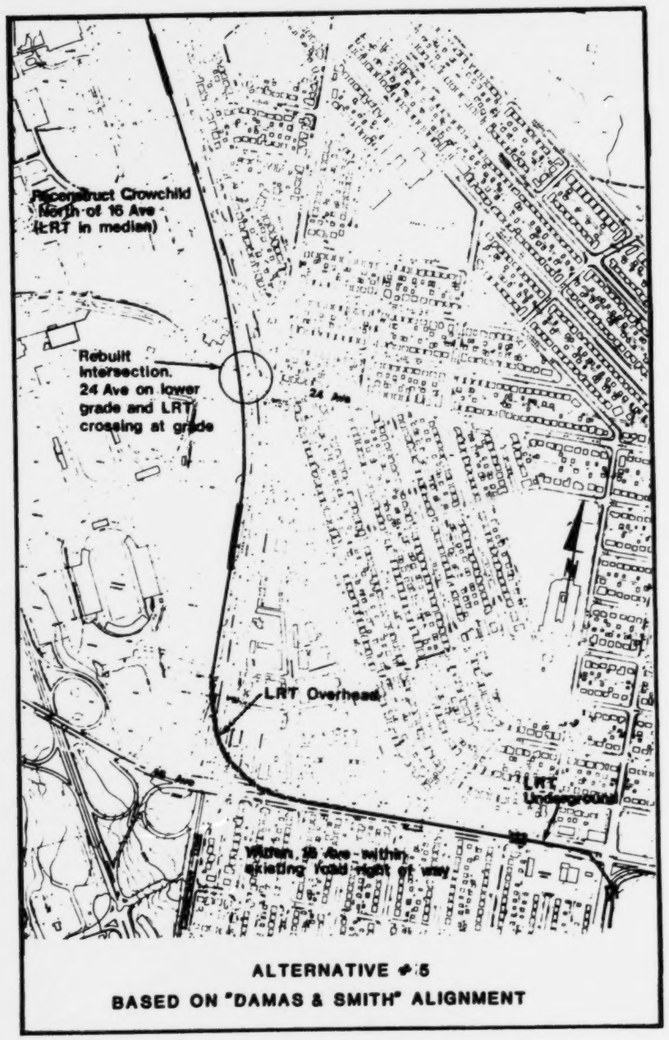
ALTERNATIVE #1
BANFF TRAIL-(1A HIGHWAY) ALIGNMENT

EXHIBIT 2



ALTERNATIVE #3
16 AVENUE ELEVATED-MODIFIED
MAYOR'S TASK FORCE ALIGNMENT

EXHIBIT 3


Reconstruct Crowchild North of 16 Ave (LRT in median)
Rebuilt intersection. 24 Ave on lower grade and LRT crossing at grade
24 Ave
LRT Overhead
LRT Underground
Within 30 m - within existing road right of way

ALTERNATIVE #5
BASED ON "DAMAS & SMITH" ALIGNMENT

EXHIBIT 4

NOTE:
1. Plan Views for detailed roadway characteristics of the alternative alignments are shown in Exhibits 10a, b, c.
2. Perspectives and cross-sections of alternative alignments are shown in Exhibits 7a to 8b.

ALIGNMENT EVALUATION BETWEEN 19th ST N.W. & THE UNIVERSITY of CALGARY

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION		
		ALTERNATIVE # 1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE # 3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE # 5 BASED ON "DAMAS & SMITH" ALIGNMENT
1. LAND USE IMPACTS				
1.1 Compatability with Approved Policies This criterion examines each alternative in terms of how it relates to the land use and transportation documents that have already received Council approval. The Calgary General Municipal Plan, the Inner City Plan, the North Bow Design Brief, the Northwest L.R.T. Functional Study (CALTS #73), the Crowchild North Functional Planning Study (CALTS #53), the City of Calgary Transportation System By-law (By-law 3M82) and other documents provide policies that may affect the study area.	Section 3 "Planning Context" in Appendix I provides an account of the major decisions and policy documents approved by City Council.	o Compatible with City of Calgary Transportation System (By-law 3M82) which indicates the Northwest L.R.T. alignment to be located along 1A Highway in the Motel Village/Banff Trail area. o Compatible with other Council approved policies as documented in the "Planning Context", Section 3, Appendix I.	o Does not conform to the Northwest L.R.T. alignment shown in By-law 3M82, otherwise compatible with approved policies as documented in the "Planning Context", Section 3, Appendix I.	o Similar to Alternative #3. o Does not conform to the road configuration of the Crowchild Functional Study.
1.2 Development Potential/Opportunities The effects that alternative L.R.T. alignment will have on land development potential within the study area will be examined by identifying the maximum floor area space of development that could be accommodated in the area based on each alternative as determined by site access, roadway capacity and other servicing requirements.	Motel Village o A high density twin tower complex with a total office and retail space of approximately 590,600 square feet (F.A.R. 4.72) was approved for the "D.C." site. The rest of Motel Village is designated "C-6" which allows a variety of permitted and discretionary uses including automobile sales, rentals and services, auto-body paint shops, restaurants, retail stores, medical clinics, personal services, financial institutions, offices, motels/hotels and other uses. Under the existing land use designations, a total of approximately 2 million square feet of gross floor area could be achieved in the Motel Village area.	Motel Village o Most of the land parcels (+90%) in Motel Village are located within the immediate L.R.T. impact area (400 metre radius). With station located directly in Motel Village, development focus will be directed to this area. o Could stimulate redevelopment process due to station's physical presence in Motel Village. As soon as redevelopment process starts, it would generate further interest, thereby contributing positively to the commercial and economic viability of this area. o Would benefit from pedestrian traffic generated by both McMahon Stadium related events and transit users (L.R.T. and feeder buses).	Motel Village o Station located farthest away from Motel Village of all of the alternatives. Approximately 60 per cent of the area is within the immediate L.R.T. impact area (400 metre radius). o Regardless of L.R.T., redevelopment, albeit slower, would occur as economic conditions permit due to Motel Village's unique location and the general demand for commercial uses in this location. o As the station is located in the stadium area, a convenient pedestrian system linking the station and its related facilities (park'n'ride, kiss'n'ride, feeder bus transfers) is essential to attract pedestrian traffic to the area. o No change to existing thrcugh traffic pattern along 1A Highway.	Motel Village o Approximately 80 per cent of Motel Village is within the immediate L.R.T. impact area (400 metre radius). Development focus will likely be directed more to land parcels facing the station and the alignment. However, similar to other alternatives, once redevelopment process starts, it would generate further interest in other land parcels in Motel Village. o Development of residual lands in southeast portion of Motel Village resulting from L.R.T. right-of-way acquisition could likely stimulate redevelopment in that general vicinity. o Convenient pedestrian system linking the station and its related facilities (park'n'ride, kiss'n'ride and feeder bus transfers) to Motel Village is essential in attracting pedestrian traffic to the area.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION ALTERNATIVE #1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE #3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE #5 BASED ON "DAMAS & SMITH" ALIGNMENT
1.2 **Development Potential/ Opportunities** (Cont'd)	Motel Village (Cont'd) o Roadway/access constraints currently exist to existing and approved developments (see Transportation Impacts). Congestion will occur along 16 Avenue if the U.M.A.-Kingsrow project (D.C. site) proceeds without any road improvements. o Redevelopment potential resulting from existing land use designations could not be fully realized due to access constraints for office use and potential negative impacts to the abutting low density (R-1, R-2) residential neighbourhood. McMahon Stadium Area o McMahon Stadium, scheduled for expansion to approximately 42,000 permanent seats from an existing capacity of 34,000 and other Olympic related facilities by 1987. o Renovation and improvements to the baseball field in the Foothills Athletic Park scheduled to be completed by 1985.	Motel Village (Cont'd) o With the addition of a new signalized all-turns intersection at 16 Avenue and Banff Trail, access to Motel Village businesses to and from 16 Avenue N. will be fairly restricted with the removal of left turn access from Crowchild Trail. o Office development potential - 1.2 million square feet based on Stage II roadway network, Approximately 1.7 million square feet of office space could be possible if dual left turns from 16 Avenue to Banff Trail are provided. McMahon Stadium Area o No impact to scheduled expansion in McMahon Stadium and renovations in Foothills Athletic Park. o Compared to other alternatives, walking distance is the longest from the station to the Stadium and other recreational facilities in the area.	Motel Village (Cont'd) o In Stage 1, vehicular circulation in Motel Village is more restricted than Alternative #1, with the change of access on 16 Avenue and the service road reduced to one lane westbound; but is more favourable than Alternative #5. Motel business which depends heavily on passing traffic coming west from Trans-Canada Highway will be impacted. o In Stage II, similar to other alternatives, access from Crowchild Southbound and 16 Avenue eastbound to Motel Village will be limited when the roads are upgraded. o Similar to Alternatives #1 and #5, potential office development - 1.2 million square feet with Stage II roadway networks. Approximately 1.7 million square feet of office space could be possible if dual left turns from 16 Avenue to Banff Trail are provided. McMahon Stadium Area o No significant negative impact on scheduled McMahon Stadium expansion and renovations to Foothills Athletic Park. Design modifications on the eastern entrance of the stadium may be required, if integration with the station is considered. o Would complement and enhance the surrounding recreational uses.	Motel Village (Cont'd) o Similar to Alternative #3, no change to the existing through traffic pattern along Banff Trail-1A Highway, therefore no impact on the level of visual exposure for businesses located along 1A Highway. o In Stage I, internal access in Motel Village is least favourable amongst the three alternatives, as access from Crowchild Trail southbound to Motel Village will be eliminated. Existing signalized intersection along 16 Avenue will also be removed. As well, the Motel Village service road will be reduced to one lane westbound along 16 Avenue. This would impact the Motel business that depends heavily on the passing traffic coming from Crowchild Trail south and from the Trans Canada Highway west. o In Stage II, access to Motel Village is similar to other alternatives. o Office development potential, based on Stage II roadway network, is similar to the other alternatives. McMahon Stadium Area o No impact anticipated on McMahon Stadium expansion and renovations to the Foothills Athletic Park. o Pedestrian walking distance from the station to McMahon Stadium is shorter than Alternative #1 but longer than Alternative #3. Additional parking facilities on-site (a reduction of 930 parking stalls in Stage 1 and 150 stalls in Stage II) could be

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1.2 **Development Potential/ Opportunities** (Cont'd)	McMahon Stadium Area (Cont'd) o Approximately 2300 current on-site parking stalls and 2868 private off-street parking stalls within a walking distance of 1500 m of the stadium area. o It has been observed that during a typical football game, significant (±3000) on-street parking spaces are being utilized in the Banff Trail, Capitol Hill and University Heights areas.	McMahon Stadium Area (Cont'd) o Does not remove any existing parking stalls in McMahon Stadium in Stage I. However, in Stage II approximately 720 stalls will be required with widening of Crowchild Trail. Land is available on site to accommodate parking structure to replace parking loss. o Access to Stadium Area will not change in Stage I.	McMahon Stadium Area (Cont'd) o Similar to the Stampede Station in the Stampede Grounds, the station will increase the focus and convenience of the Stadium, and thereby reinforce and strengthen the Stadium and its adjacent facilities as a regional recreational node. Development of other recreational, cultural facilities and/or activities including concerts, trade shows, circus, religious gatherings, special shows and events, etc. can actively be explored and encouraged. As well, redevelopment of the site for other University oriented facilities could also be explored, as redevelopment in the Stadium area will not cause significant negative impacts to adjoining communities. o Could likely improve the short and long term economic viability of the stadium area. o Additional parking facilities will be required (a reduction of approximately 250 stalls in Stage I due to L.R.T. construction; 720 stalls in Stage II due to Crowchild Trail upgrading). Similar to other alternatives the site has ample space to provide on-site parking structure to replace loss of parking. o Similar to Alternative #1, existing access to McMahon from Crowchild Trail will not be affected in Stage I. Access to McMahon Stadium will be the same for all alternatives in Stage II.	McMahon Stadium Area (Cont'd) required to replace the loss of parking stalls. However, there is sufficient land on site to accommodate parking structure to replace the loss of parking. o Access to Stadium area from Crowchild Trail Northbound will be removed with the L.R.T. in the medium of Crowchild Trail.

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1.2 **Development Potential/ Opportunities** (Cont'd)	Banff Trail o Under the existing land use designations, Banff Trail could accommodate a total population of 4701 compared to the 1983 population of 3381 (i.e. a population increase of 39%). o Very few new developments were constructed in the past decade (less than 2% of the total structures). Most developments in the community are related to conversion of single family homes to duplex units. Between 1976-1983, converted dwelling units in the community showed an increase of 78%. o A significant amount of under-developed R-2 lots (approximately 75%) are available for new duplex development and conversion. o Some of the existing RM-4 lands have only R-1 and R-2 developments. o Internal road system does not favour high density development. Briar Hill o Stable, low density residential community (mainly R-1). Motel Village o The trend towards diversifying the existing tourist (motel/hotel) function to other uses is apparent with the approval of an office/retail development, and an auto sales and servicing facility since 1982.	Banff Trail o Perceived redevelopment potential as related to the L.R.T. system will be directed to that part of the community immediately adjacent to the station. o Could stimulate more rental units to be built in existing R-2 areas due to improved accessibility offered by L.R.T. Location of station in this area provides easy access to more dwelling units (370) within the Banff Trail community than the other alternatives. Briar Hill o In Stage I, similar for all three alternatives - no L.R.T. related impacts, due to barriers created by 16 Avenue and Crowchild Trail, as well as distance from the station. In Stage II - no change from existing. Motel Village o Changes already started. Medium-high density office developments have been proposed and approved. This trend is expected to continue when the economy recovers.	Banff Trail o The station will be farthest from the community of the three alternatives. This alternative will have the least impact in terms of redevelopment pressure on the community. Redevelopment pressures on the community for high density development associated with L.R.T., as perceived by the general public, will be eased on the community with the physical distance and separation from the station. However, pressures to maximize current R-2 land use designations will likely continue as in the past. o The L.R.T. ridership catchment area within the Banff Trail community is anticipated to be the smallest amongst the alternatives. Approximately 60 dwelling units are located within a 400 metre of the station. Briar Hill o In Stage I, similar to all other alternatives, no immediate L.R.T. related impacts unless land is required from the service road to provide a left turn lane to Motel Village. In Stage II, conditions same as Alternatives #1 and #5. Motel Village o All three alternatives are very similar. o Existing trend towards medium-high density and office developments will continue in spite of longer walking distance to the station.	Banff Trail o Similar to Alternative #3, perceived redevelopment focus will be directed away from the community, as the station is located in the median of Crowchild Trail to the west of the community. This will tend to reduce the immediate physical and psychological impact on the community. Pressures to maximize current R-2 land use designations will likely continue as in the past. o L.R.T. ridership catchment area in Banff Trail is slightly larger than Alternative #3. Approximately 200 dwelling units are within 400 metre radius of the station. Briar Hill o In Stage I, similar to Alternative #3, no immediate L.R.T. impact, unless land is required from the service road to provide a left turn lane to Motel Village. In Stage II, conditions same as Alternatives #1 and #3. Motel Village o Same as Alternative #1 and #3.
1.3 **Potential Change of Use** This criterion involves reviewing potential land use changes that could occur in Motel Village, the Banff Trail community and its abutting areas. Depending on the L.R.T. alignment and station location selected, some changes in existing land use patterns might be required				

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1.3 Potential Change of Use (Cont'd) to provide for an optimum mix of development that could be supportive of the L.R.T. system and complementary to the abutting neighbourhoods. It should also be noted that areas in close proximity to the stations may continuously be under pressure for change if the land use policy for these areas is not stabilized through the adoption of an A.R.P. and complementary land use designations (zoning).	Motel Village (Cont'd) o Medium-high density development is replacing existing low density uses (e.g. The Village Park Inn, the UMA-Kingsrow office complex). o Existing motel use is facing considerable competition from similar uses with more up-to-date facilities in other parts of the City. McMahon Stadium Area o Existing uses expected to remain. Banff Trail o For the past decade conversion of single-family dwellings to R-2 units, as permitted under existing land use designations, has been the dominant development activity in the community. o Redevelopment of existing RM-4 sites is hampered by current market conditions.	Motel Village (Cont'd) o Pedestrian and transit oriented uses (e.g. office, residential, recreational and mixed-use developments) supportive of the L.R.T. system will be included in the A.R.P. review. As well, design and intensity of development compatible with the adjacent community and supportive of the transit system will also be explored in the A.R.P. review. McMahon Stadium Area o All alternatives are very similar. o No significant change to the existing recreational function is anticipated as evidenced by recent expansion plans of McMahon Stadium and renovations to the baseball field in Foothills Athletic Park. Banff Trail o To preserve the character and integrity of the existing community, land use designation changes (zoning) in the community are not recommended. In addition, strong "conservation policies" and other protection measures will be incorporated in the A.R.P. to contain redevelopment pressures generated by L.R.T. o Notwithstanding adoption of an A.R.P., on-going pressures for change will likely persist due to proximity of station to community. o Based on past trends, conversion from single-family to duplexes will continue regardless of L.R.T.	Motel Village (Cont'd) o Due to the physical distance and separation between the station and Motel Village, a system of convenient pedestrian connections from the station to Motel Village is essential to optimize the L.R.T. system and the transit facilities located in the Stadium area. McMahon Stadium Area o All alternatives are very similar. o No significant change to existing recreational role is anticipated. However, close proximity to the station may likely provide some impetus to better utilize the existing facilities. Other recreational, educational and cultural facilities may be attracted to this area due to the proximity of L.R.T. Banff Trail o Very similar for all the alternatives. o As the station is located the farthest from the community (+300 metres away) and separated by Crowchild Trail and Motel Village, on-going pressures to change may be less. However, strong "conservation policies" will still be needed to overcome perceived L.R.T. related impacts and to maintain the quality of neighbourhood. o Land use designation changes are not recommended.	McMahon Stadium Area o Same as Alternatives #1 and #3. Banff Trail o Same as Alternative #1.

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1.3 **Potential Change of Use** (Cont'd)		Banff Trail (Cont'd) o There may be more incentive for development of the existing RM-4 sites in the community.		
	Briar Hill o No significant change for the past decade.	Briar Hill o Stage I, no change anticipated. o Stage II, reduction of housing stock will occur along 16 Avenue as widening to the south is implemented.	Briar Hill o Stage I, no change anticipated. However, 2 houses may be required to provide left turns from 16 Avenue to Motel Village. In Stage II, same as Alternatives #1.	Briar Hill o Same as Alternative #3.
1.4 **Station Design/Integration** The effect that each alternative L.R.T. alignment would have on station design and its integration with adjacent land uses will be examined. The scale of the station should complement the scale of adjacent land uses. The need for and the type of pedestrian access to and from the areas adjacent to the station will be reviewed as part of the evaluation.	o N/A.	o An open platform station which will be bermed so as to be as unobtrusive as possible will be provided. o An elevated pedestrian overpass linking the community and the sideload station is essential to provide easy access to residents. o A system of pedestrian walkways is essential in linking the station to all the transit related facilities located west of Crowchild Trail. o The station, being unobstrusive and located away from Crowchild Trail, would not have good exposure to the public.	o Station can be designed so as to be integrated with stadium facilities. o Convenient pedestrian access linking up the various activity nodes (i.e. Motel Village/ Banff Trail community, McMahon Stadium) is essential. o Station has good exposure to the public.	o Located in the median of Crowchild Trail would pose fewer design constraints in terms of interfacing and integrating with commercial uses in Motel Village, and recreational facilities in the stadium area. o Pedestrian access linking up the various activity nodes (Motel Village, station and stadium facilities and Banff Trail) is essential. o Station has excellent exposure to the public.
1.5 **Displacement of Existing Businesses and/or Residences** With several of the L.R.T. alignment alternatives being evaluated, additional rights-of-way may be required for purposes of road widening and/or construction to accommodate the L.R.T. track and its related facilities. Depending upon the alignment, the removal of businesses and/or homes may be involved. The number of structures removed, and the residences and businesses displaced will be determined for each alternative.	o N/A.	Stage I o Land from University of Calgary will be required to accommodate L.R.T. and Crowchild Trail upgrading, north of 24 Avenue to just south of 32 Avenue. Stage II o When 16 Avenue is upgraded (not L.R.T. related) at least one row of houses (11) from Briar Hill will be required.	Stage I o Same as Alternative #1. Land required from the University of Calgary for L.R.T. and Crowchild Trail r.o.w. north of 24 Avenue N.W. Additional land will be taken from the University to provide for the L.R.T. alignment. Land is also required from McMahon Stadium area for L.R.T. r.o.w..	Stage I o Land from University of Calgary and McMahon Stadium area will be required to accommodate L.R.T. in Crowchild median and upgrading of Crowchild Trail between 16 and 32 Avenues North.

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1.5 **Displacement of Existing Businesses and/or Residences** (Cont'd)		o Loss of church at Crowchild Trail and 24 Avenue N.W. and 4 houses along 24 Avenue due to Crowchild Trail upgrading (not L.R.T. related). Also impact to McMahon Stadium parking due to Crowchild Trail upgrading.	o 2 houses from Briar Hill may be required, if an all turns signalized intersection is provided on 16 Avenue to service Motel Village. Stage II o When 16 Avenue is upgraded, at least one row of houses (11) from Briar Hill, will be required with the L.R.T. in the median of 16 Avenue. A church at Crowchild Trail and 20 Avenue N.W., 4 houses along 24 Avenue and also land from McMahon Stadium and University of Calgary will be required for upgrading of Crowchild Trail from 16 Avenue to 32 Avenue North.	o For Stage I, property acquisition in Motel Village - (Denny's Restaurant, La Concha); a church located at Crowchild Trail and 24 Avenue N.W., 7 houses along 24 Avenue N.W. As well, similar to Alternative #3, 2 houses may be required from Briar Hill if a left turn lane to Motel Village is provided on 16 Avenue. Stage II o Similar to Alternative #3, at least one row of houses in Briar Hill will be required to upgrade 16 Avenue.
1.6 **Impact on Open Space and/or Community Facilities** Changes to the existing open space system and/or community facilities resulting from each alignment alternative will be examined.	o N/A	Stage I o Land from University required for L.R.T. and Crowchild r.o.w. o Some of the existing open space area, north of 16 Avenue in the Banff Trail area will be required for L.R.T. construction. In addition, existing mature trees in the landscaped buffer areas between Banff Trail community, and Motel Village will be removed due to reconstruction of 1A Highway and the service road and the construction of L.R.T. o After L.R.T. construction, more landscaped area will be available for buffering between the Banff Trail community and the L.R.T. alignment. o Stage II - loss of church at Crowchild Trail and 24 Avenue N.W. when Crowchild Trail is upgraded.	Stage I o Land from University required for L.R.T. r.o.w., north of 24 Avenue N.W.; to accommodate L.R.T. alignment from Stadium to the University grounds. o Land from Stadium required to accommodate L.R.T. o Internal circulation in Stadium area needs to be modified to accommodate L.R.T.. o Jumping pit may be affected. Stage II o Same as Alternative #1.	Stage I o Impact to University property same as Alternative #1. o More land required from Stadium area than other alternatives due to upgrading of Crowchild between 16 Avenue and 24 Avenue. o Loss of church at Crowchild Trail and 24 Avenue N.W. Stage II o No impact.

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2. COMMUNITY IMPACTS 2.1 Redevelopment Pressure/ Neighbourhood Stability In the absence of Council approved policies, different perceptions of development opportunities in a station area often cause considerable speculation and instability. The effects that each alternative alignment would have on neighbourhood stability will be examined. This will be done by analyzing past real estate activities (e.g. land development activities, requests for redesignations, etc.) in the area and by determining perceived redevelopment pressures felt by local property owners. Studies have shown that L.R.T. stations tend to attract higher density developments around them. Generally, the intensity of redevelopment pressure depends upon proximity to L.R.T. stations. Effects are anticipated to be the greatest upon uses located immediately adjacent to the stations and are anticipated to diminish as distance from the facility increases.	Motel Village o The land ownership pattern as shown in Map 9 in Appendix I shows fairly significant land consolidations in the area. High turnovers in land and businesses are also evident. Recent developed and approved projects include the Village Park Inn, and an auto-dealership. In addition, a high density triple office complex has also been approved. o Location of the Northwest L.R.T. alignment in Motel Village has been cited by some developers (e.g. the UMA-Kingsrow project) as one of the factors in attracting their interest to this area. McMahon Stadium Area o Site approved for McMahon Stadium expansion by 1987. Facilities include additional 7,000 permanent seats, Olympic Volunteer Centre, Olympic Services Centre, additional concessions, etc. o Renovations to the Foothills Athletic Park scheduled for completion by 1985. Banff Trail o Perception that L.R.T. would bring change and introduce high density developments to the area, is quite wide spread as evidenced by residents' concerns expressed at the various Open Houses held in the area. o Redevelopment pressure was perceived to be quite significant by local residents.	Motel Village o Would continue to experience redevelopment pressures due to the physical presence of the station. McMahon Stadium Area o Accessibility to Stadium improved with L.R.T. It could stimulate additional activities in this area. o Longer distance for L.R.T. users to get to the activities in the Stadium area when compared with other alternatives (approximately 300 m. and 150 m. longer distance to walk when compared with Alternatives #3 and #5 respectively). Banff Trail o Would likely continue to generate redevelopment pressures in the area due to the perceived impacts/benefits of the station by the general public.	Motel Village o Redevelopment pressure generated by L.R.T. will likely be somewhat reduced with the station located adjacent to the Stadium. However, regardless of L.R.T., redevelopment pressures would likely occur as and when market conditions permit because of Motel Village's unique location. McMahon Stadium Area o Comparable to the Stampede Station in the Stampede grounds. It could likely stimulate additional recreational and cultural related activities in the Stadium area due to improved focus, convenience and accessibility. Banff Trail o Will assist in reducing the perceived L.R.T. related impacts due to the physical distance and separation between the station and Banff Trail created by Motel Village and Crowchild Trail. o Will assist in reducing instability and speculative activities in the community.	Motel Village o With the station located in the median of Crowchild Trail. Motel Village is still within the immediate L.R.T. impact area. o Redevelopment pressures could be more pronounced in the vicinity of 23 Avenue and along Crowchild Trail due to improved level of visual exposure. However, the balance of the area will likely experience similar redevelopment pressures once the area immediate to the station is developed. McMahon Stadium Area o Compared with Alternative #1, location of station in the medium of Crowchild Trail is more visible to the general public and could be perceived by L.R.T. users as more convenient when attending activities in the stadium area. o As with other alternatives, this alternative could also stimulate additional recreational and cultural activities in the Stadium area. Banff Trail o Similar to Alternative #3.

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2.1 **Redevelopment Pressure/ Neighbourhood Stability** (Cont'd)	Banff Trail (Cont'd) o Review of ownership pattern indicated distribution of absentee property owners is fairly evenly spread out. No specific concentration is evident. o A few isolated properties in the community are registered with holding and numbered companies. o Recent developments (infill housing, new single family homes, etc.) within the community are not specifically related to L.R.T. location. o Declining population and school enrollments, and increasing number of rental units and renters could contribute towards residents' general perception of increasing instability in the community. Briar Hill o Stable.	Banff Trail (Cont'd) o Stability could be difficult to maintain if environmental quality adjacent to the station deteriorates resulting from increasing traffic or overspill parking and/or residents' perception regarding high density development and L.R.T. does not change. o Potential overspill parking, shortcutting traffic and other L.R.T. related problems, must be addressed and measures undertaken to protect the Banff Trail community. Briar Hill o No impact.	Banff Trail (Cont'd) o Potential overspill parking, shortcutting and other L.R.T. related traffic problems must be addressed to protect the existing environmental quality. Briar Hill o No impact.	Briar Hill o No impact.
2.2 **Community Integration/Severance** The degree of "fit" of L.R.T. with adjacent communities will be examined by this criterion. Each alternative will be evaluated with respect to its ability to be integrated into the local environment and the extent to which it creates the "actual" and "perceived" barriers.	o Major roadways located on edge of community. o Easy access for residents to access to community hall, churches, schools and open space within community. o Lack of grade-separated walkway from Banff Trail and Motel Village to the McMahon Stadium area.	o As with some of the communities in the South L.R.T. Corridor, Banff Trail residents could perceive their community as being "divided", if vehicular traffic related to kiss'n'ride, park'n'ride, etc. increases significantly on their local streets, particularly along 20 and 23 Avenues, where school, playgrounds and community hall are located.	o No impact.	o No impact.
2.3 **Shortcutting, Through Traffic and Spillover Parking** Each alignment will be evaluated with respect to the potential for changes in local traffic patterns. Included in the assessment will be a review of existing and potential shortcutting traffic problems associated with each alternative. (See also 4.1 (f) and g).	Banff Trail o Very little shortcutting on residential streets, some shortcutting on collector roads e.g. 20 and 24 Avenues, 19 Street N.W.	Banff Trail o With the station located in Motel Village adjacent to the community, certain local streets (e.g. 20 Avenue, 24 Avenue) will likely experience an increase in vehicular and pedestrian traffic related to park'n'ride and kiss'n'ride activities.	Banff Trail o With the station and all its related facilities located in the McMahon Stadium area, L.R.T. traffic related problems are anticipated to be significantly less than Alternative #1.	Banff Trail o L.R.T. related traffic problems likely to be less significant than for Alternative #1 but more so than Alternative #3.

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2.3 **Shortcutting, Through Traffic and Spillover Parking** (Cont'd)	Banff Trail (Cont'd) o Overspill parking from University and McMahon Stadium. The extent of overspill varies considerably at McMahon Stadium depending upon specific events. Significant overspill occurs during professional football games (approximately 10-12 games per year). o A 2-hour residential parking zone has been implemented to mitigate problems associated with overspill student parking from the University. Briar Hill o Some overspill parking from McMahon Stadium during football games.	Banff Trail (Cont'd) o Shortcutting traffic will be mainly from local residents dropping people off at station area. o Measures including implementation of a two hour restricted parking zone will have to be undertaken to minimize shortcutting and overspill parking. Strict enforcement of parking regulations on a regular basis should also be carried out. Briar Hill o No change from existing.	Banff Trail (Cont'd) o If existing access from Motel Village to/from 16 Avenue cannot be maintained (resulting from construction of the L.R.T. alignment along 16 Avenue) shortcutting traffic from Motel Village via the community may occur. Briar Hill o No change from existing.	Banff Trail (Cont'd) o Due to poor access to/from Motel Village with the construction of L.R.T. along Crowchild Trail medium, and 16 Avenue, more shortcutting traffic in the community is anticipated. Briar Hill o No change from existing.
2.4 **Business and/or Community Disruption During the Construction Phase** Disruption to normal access due to temporary detours and/or permanent restrictions of local access, the rerouting of buses, construction noise, vibration and dust are potential impacts affecting businesses and residents during the construction phase. These impacts will be evaluated for each alignment alternative where possible. See also 4.1.(b).	o N/A.	Motel Village o Motel businesses along 1A, requiring a high level of visibility and high volume of passing traffic, will be impacted, but access to the properties will be maintained at all times during construction. o No access disruption to Motel Village along Crowchild Trail. o Moderate disruption for one construction season along 1A.	Motel Village o Access from 16 Avenue N. eastbound to Motel Village will be severely restricted, although an all-turns intersection on 16 Avenue will be provided during construction. o Disruption for businesses along 16 Avenue. o No access disruption to Motel Village along Crowchild Trail. o Moderate to heavy construction disruption on 16 Avenue for two construction seasons.	Motel Village o Access to/from Crowchild Trail will be partially restricted during construction with an all-turns intersection provided. o Impact on 16 Avenue same as Alternative #3. o Moderate to heavy construction disruption along 16 Avenue and Crowchild Trail for two construction seasons.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION		
		ALTERNATIVE # 1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE # 3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE # 5 BASED ON "DAMAS & SMITH" ALIGNMENT
2.4 **Business and/or Community Disruption During the Construction Phase** (Cont'd)		McMahon Stadium Area o No change from existing. Briar Hill o Construction impact to a motel and a car dealership on 16 Avenue west of 19 Street. Banff Trail o Noise, vibration and dust would be felt by homes in Banff Trail facing the alignment (59 homes). However, structural damage is unlikely.	McMahon Stadium Area o L.R.T. construction in Stadium area will have to be staged, so as not to negatively interfere with activities in the Stadium and Foothills Athletic Park. Moderate disruption to pedestrian access to Stadium (east stands concourse) during construction. Banff Trail and Briar Hill o Noise, vibration, dust, etc. during construction will be annoying to homes facing the alignment (28 homes) in both Banff Trail and Briar Hill. Structural damage could occur if pile driving is required. Businesses (1 motel and 1 car dealership) on 16 Avenue west of 19 Street will be impacted during construction.	McMahon Stadium Area o Access reduced but maintained at an all-turns intersection on Crowchild Trail. o No left turns to/from Crowchild Trail. Banff Trail and Briar Hill o Same as Alternative #3.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION		
		ALTERNATIVE #1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE #3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE #5 BASED ON "DAMAS & SMITH" ALIGNMENT
3. ENVIRONMENTAL IMPACTS 3.1 Noise Assessment of the acoustic environment to determine the impact of L.R.T. on noise levels of residences abutting each alignment alternative will be undertaken and appropriate attenuation measures identified.	o Primary determinant of ambient noise levels is traffic on 16 Avenue, 1A Highway and Crowchild Trail (north of 23 Avenue). o Measurements conducted on the south side of 16 Avenue in Briar Hill ranged from 62 dB(A) Leq (24) to 65 dB(A) Leq (24). o Noise level of traffic along 16 Avenue expected to increase to 68 dB(A) Leq (24) by year 2110. o Noise attenuation walls along 16 Avenue have been requested by Briar Hill. o Noise levels in Banff Trail ranged from 48.8 dB(A) to 54 dB(A) (1979 readings). o Impact of traffic noise from Crowchild Trail to Banff Trail south of 23 Avenue is not as significant due to Motel Village which acts as a buffer between Crowchild Trail and the community. o North of 23 Avenue, noise from Crowchild Trail can be heard.	Banff Trail o No increase in noise levels due to L.R.T. o All potential L.R.T. noise can be mitigated by noise attenuation walls, landscaping, berming, open ballast tracks, etc. o L.R.T. track will be bermed and depressed. (See cross-sections - in Exhibit 8a). Briar Hill o No impact.	Banff Trail o No impact. Briar Hill o No L.R.T. noise impact. However, if land is required to accommodate a left turn on 16 Avenue to serve Motel Village, traffic noise from 16 Avenue will be felt more accutely by the first few rows of residences facing the road if sound attenuation wall is not provided. o A noise attenuation wall (approximately 3 m. high) can be installed along 16 Avenue to minimize potential noise impact.	Banff Trail o No impact. Briar Hill o Traffic noise same as Alternative #3.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION		
		ALTERNATIVE #1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE #3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE #5 BASED ON "DAMAS & SMITH" ALIGNMENT
3.2 Vibration The degree of vibration experienced by residences along each alignment alternative will be examined and appropriate mitigating measures identified.	o Truck traffic on 16 Avenue creates vibration.	Banff Trail o Distance of 30 m between track and homes will mean that L.R.T. vibration will be inperceptable. Briar Hill o No impact.	Banff Trail and Briar Hill o Vibration transmitted into the ground by structure support columns can be mitigated at source.	Banff Trail and Briar Hill o Similar to Alternative #3.
3.3 Visual Potential visual impacts that will be reviewed for each L.R.T. alternative include: - loss of privacy, - loss of existing views, and - visual disturbance (e.g. lighting standards of stations, presence of L.R.T. corridor with its overhead wires and poles, elevated walkways, architectural aspects of station, etc.). (See Exhibits 7a to 7e for various perspectives along Banff Trail and 16 Avenue)	o Distant mountain views available for some residents facing Capitol Hill Crescent, north of 23 Avenue N.W. o Existing mature trees and the landscaped buffers located between Capitol Hill Crescent and Motel Village offer visual relief to residents facing Motel Village, and generally improve the visual quality of the area.	Motel Village o Station and pedestrian overpass, passing trains and L.R.T. catenary are visible to Motel Village area. Banff Trail o Visual intrusion due to L.R.T. catenary (overhead wires), partially visible passing trains may directly affect single-family homes (59 homes) facing the alignment. o Open platform station unlikely to have any significant visual impact. However, the elevated pedestrian connections (6 m. above Capitol Hill Crescent) could affect approximately 20 homes. o Existing distant views to the mountains for homes located in the vicinity of 23 Avenue N. and Capitol Hill Crescent could be affected. It must be noted, however, that the views will be affected eventually if Motel Village is redeveloped to its allowable three storeys.	Motel Village o Elevated structure along 16 Avenue is visible to motel/hotel units facing 16 Avenue. o Visibility of some businesses to travelling public may be reduced by elevated structure and pier placements along 16 Avenue. Banff Trail o Visual impact with L.R.T. at-grade along 16 Avenue.	Motel Village o Same as Alternative #3. Banff Trail o Same as Alternative #3.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION		
		ALTERNATIVE # 1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE # 3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE # 6 BASED ON "DAMAS & SMITH" ALIGNMENT
3.3 Visual (Cont'd)		Banff Trail (Cont'd) o Opportunity exists to improve visual quality by sensitive design of station, as well as by depressing, screening and landscaping the station and L.R.T. alignment areas. Briar Hill o Visual impact with L.R.T. at-grade on 16 Avenue.	Briar Hill o Visual intrusion to some residents between 1A Highway and Crowchild Trail in Briar Hill due to elevated structure along 16 Avenue (8 m. - distance from 16 Avenue to rails at highest point; structure is approximately 2.5 - 3 m. deep).	Briar Hill o Same as Alternative #3 except that rails on structure are approximately 10 m. from 16 Avenue N. at highest point.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION		
		ALTERNATIVE # 1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE #3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE # 5 BASED ON "DAMAS & SMITH" ALIGNMENT
4. TRANSPORTATION IMPACTS **4.1 Associated Roadway Improvements and Their Effects on the Arterial Network and Local Access** The roadway improvements required for each L.R.T. alternative will be examined and compared. In addition, the effect that each L.R.T. alternative would have on access to Motel Village, Banff Trail and other local facilities will be included in the evaluation. a) **Associated Roadway Improvements** b) Access	N/A Motel Village o 2-way service road surrounding Motel Village site. o 2-way 1A Highway east of Motel Village. o Access from: Crowchild Trail - 2 unsignalized intersections (all turns) 16 Avenue N. - 1 signalized intersection (all turns)	See List of Improvements (Pages 4-5) Motel Village Construction of Stage I o Moderate disruption over one construction season along Banff Trail as west service road is reconstructed. Access will be maintained. o No disruption to access to Motel Village from 16 Avenue N. or Crowchild Trail. Stage I o 2-way service road system retained along 16 Avenue N. & Crowchild Trail. o Signalized intersection can be constructed at Banff Trail/16 Avenue to allow single left turn to/from 16 Avenue EB. o Existing signalized intersection at Motel Village/16 Avenue can be retained. o Banff Trail will be removed. Existing service road to be reconstructed on west side of L.R.T. to serve as a 2-way service road.	See List of Improvements (Page 5) Motel Village Construction of Stage I o Moderate to heavy disruption over two construction seasons along 16 Avenue N. o Considerable roadway detour work required on 16 Avenue N. including use of Briar Hill Service Road. o Access to business less direct but maintained by an all-turns intersection on 16 Avenue N. during construction. Stage I o 2-way service road system retained along Crowchild Trail and Banff Trail (1A Highway). o 2-way service road along 16 Avenue eliminated to make room for widened median. o Existing signalized intersection at Motel Village/16 Avenue N. removed. o New signalized intersection at west Motel Village service road/ 16 Avenue N. to allow left turns to/from 16 Avenue N. EB.	See List of Improvements (Page 6) Motel Village Construction of Stage I o Similar to Alternative #3. o In addition, access to/from Crowchild Trail will be partially restricted during construction. However, an all-turns intersection could be maintained. Stage I o 2-way service road system retained along Crowchild Trail and Banff Trail. o 2-way service road along 16 Avenue N. eliminated to make room for widened median. o New signalized intersection at west Motel Village service road/ 16 Avenue N. to allow left turns to/from 16 Avenue N. EB. o Existing signalized intersection at Motel Village/16 Avenue removed.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION		
		ALTERNATIVE #1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE #3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE #5 BASED ON "DAMAS & SMITH" ALIGNMENT
b) Access (cont'd)	Motel Village (Cont'd) 16 Avenue N. - 3 unsignalized intersections westbound, right-in, right-out to 16 Avenue westbound. Banff Trail (1A Highway) - 2 unsignalized intersections (all turns)	Motel Village (Cont'd) o Reconstructed Banff Trail (1A Highway) will connect Crowchild Trail via 23 Avenue N. instead of the existing intersection N. of 23 Avenue N. o Existing access points along Crowchild Trail and 16 Avenue N. retained. Stage II o No direct access to/from Crowchild Trail southbound. o Access to/from 16 Avenue eastbound at 1A Highway/16 Avenue intersection only (dual turns possible). o Access from North or to South via 16 Avenue Interchange.	Motel Village (Cont'd) o 16 Avenue/1A Highway (Banff Trail) intersection will be modified to allow left turns from 1A Highway (Banff Trail) southbound to 16 Avenue eastbound. Eastbound left turns from 16 Avenue N. to 1A Highway could be provided if portion of Briar Hill service road is utilized. Stage II o Similar to Alternative #1.	Motel Village (Cont'd) o 16 Avenue/1A Highway (Banff Trail) intersection can be modified similar to Alternative #3 Stage II Similar to Alternative #1.
	McMahon Stadium Area o Access from: Crowchild Trail - 4 unsignalized intersections (all turns) - 1 right-in, right-out intersection only to Crowchild Trail S.B. o 16 Avenue traffic via University Drive or Banff Trail to Crowchild Trail.	McMahon Stadium Area Construction of Stage I o Vehicular and pedestrian access similar to existing access conditions. Stage I o Similar to existing access. Stage II o No left turn access to/from Crowchild Trail northbound - alternate access via University Drive and 24 Avenue N.	McMahon Stadium Area Construction of Stage I o Vehicular access similar to Alternative #1. o Moderate disruption to pedestrian access to Stadium (east stands concourse) during construction season. Stage I and II o Vehicular access similar to Alternative #1. o Pedestrian access to Stadium through/across L.R.T. station and tracks.	McMahon Stadium Area Construction of Stage I o Vehicular access reduced. A single all-turns intersection can be maintained on Crowchild Trail. Stage I o No left turn access to/from Crowchild Trail NB. o Alternate access via University Drive and 24 Avenue N. Stage II o Similar to Alternative #1.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION		
		ALTERNATIVE # 1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE # 3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE # 5 BASED ON "DAMAS & SMITH" ALIGNMENT
b) Access (cont'd)	Banff Trail o Via 20 Avenue N., 24 Avenue N., 19 Street W. and Crowchild Trail. Briar Hill o Via 14 Avenue N., 16 Avenue N., 19 Street W. and Crowchild Trail. o Access to Briar Hill from 16 Avenue N. at 22 StreetW. (bus only) and 20A Street N.	Banff Trail Stage I and II o Similar to existing access conditions. Briar Hill Stage I o Similar to existing access conditions. Stage II o Access to 20A Street W. and 22 Street W. (bus only) from 16 Avenue can be retained. Community input should be obtained before design is finalized.	Banff Trail Stage I and II o Similar to existing access conditions. Briar Hill Stage I o Similar to existing access conditions. Access from 16 Avenue N. to 20A Street W. and 22 Street W. (bus only) could be retained. Community input should be retained before design is finalized. Stage II o Access to 20A Street W. and 22 Street W. (bus only) from 16 Avenue N. can be retained. Community input should be obtained before design is finalized.	Banff Trail Stage I and II o Similar to existing access conditions. Briar Hill Stage I o Similar to Alternative #3. Stage II o Access to 20A Street W. and 22 Street W. (bus only) from 16 Avenue N. can be retained. Community input should be obtained before design is finalized.
c) Internal Circulation	Motel Village o 2-way service road surrounding the entire site. o Service roads separate from Crowchild Trail, Banff Trail and 16 Avenue N.	Motel Village Stage I o No change to existing internal circulation except that Banff Trail (1A Highway) will be removed and the existing service road will be reconstructed as a 2-way service road on east side of Motel Village. Stage II o 2-way service road can be maintained along 16 Avenue N. if widening to the south occurs.	Motel Village Stage I o 2-way service road retained along Crowchild Trail and to the west of Banff Trail. o 2-way service road eliminated along 16 Avenue N. Stage II o Similar to Stage I above.	Motel Village Stage I o 2-way service road retained along Crowchild Trail and to the west of Banff Trail. o 2-way service road eliminated along 16 Avenue N. Stage II o 2-way service road retained along Banff Trail only. o Service road becomes 1-way NB along Crowchild Trail.
d) McMahon Stadium Parking and Park'n'Ride Capacity	Total parking stalls east side of McMahon Stadium - approximately 1500 stalls.	Stage I o No effect on parking.	Stage I o Reduction of approximately 250 stalls with L.R.T. at-grade in Stadium.	Stage I o Maximum reduction of approximately 930 stalls with widening of Crowchild Trail and L.R.T. in median of Crowchild Trail.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION		
		ALTERNATIVE # 1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE # 3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE # 5 BASED ON "DAMAS & SMITH" ALIGNMENT
d) **McMahon Stadium Parking and Park'n'Ride Capacity** (Cont'd)		Stage II o Maximum reduction of 720 stalls with widening of Crowchild Trail.	Stage II o Maximum reduction of additional 720 stalls with widening of Crowchild Trail.	Stage II o Maximum reduction of additional 150 stalls with C-D road on west side of Crowchild Trail.
e) **Traffic Operations**	16 Avenue N. (Between 19 Street W. & Crowchild Trail) o 3 lanes westbound and 2 lanes eastbound. o Signalized intersection at: - Motel Village LOS A-PM - 19 St. W. LOS C/D - PM o Right-in, right-out access to/from Motel Village along 16 Avenue westbound. o Right-in, right-out access to Banff Trail (1A Highway). o Right-in, right-out access to/from Briar Hill at 20A Street W. from 16 Avenue eastbound. o Bus only access to Briar Hill at 22A Street W.	16 Avenue N. Stage I o No change to existing operating conditions. o New signalized intersection at Banff Trail (1A Highway)/16 Avenue N. (all turns) can be provided with additional left turn capacity to/from Motel Village from 16 Avenue N. Stage II o 3 lanes WB and 3 lanes EB. o Widening could occur to north or south - direction will have impact on land acquisition in Motel Village or Briar Hill. o Widening to south would be compatible with existing roadway east of 19 Street W. on 16 Avenue N. 2-way service road could be maintained in Motel Village. o Diamond interchange at Crowchild Trail/16 Avenue N.	16 Avenue N. Stage I o 3 lanes WB and 2 lanes EB. o Existing signalized intersection at 16 Avenue/ Motel Village removed. o New signalized intersection at west Motel Village service road/ 16 Avenue N. Operational problem can be expected at this intersection. o Additional E/B to N/B and S/B to E/B access to/from Motel Village can be provided at Banff Trail if portion of Briar Hill service road is utilized. Stage II o 3 lanes WB and 3 lanes EB. o Widening to south will have impact on land acquisition in Briar Hill. o Diamond interchange at Crowchild Trail/16 Avenue N.	16 Avenue N. Stage I o 3 lanes WB and 2 lanes EB. o Existing signalized intersection at 16 Avenue/Motel Village removed. o New signalized intersection at west Motel Village service road/16 Avenue N. Operational problem can be expected at this intersection. o Additional E/B to N/B and S/B to E/B access to/from Motel Village can be provided at Banff Trail if portion of Briar Hill service road is utilized. Stage II o 3 lanes WB and 3 lanes EB. o Widening to south will have impact on land acquisition in Briar Hill. o Tight diamond interchange (1 intersection) at Crowchild Trail/16 Avenue N.
	Crowchild Trail (between 16 Avenue N., & 24 Avenue N.) o 3 lanes NB and 3 lanes southbound. o Signalized intersection at 24 Avenue N. - LOS E - PM. o 4 unsignalized intersections.	Crowchild Trail Stage I o No change to existing operating conditions.	Crowchild Trail Stage I o No change to existing operating conditions.	Crowchild Trail Stage I o 3 lanes each direction. o No direct access from private properties to NB Crowchild Trail (i.e. via service road in Motel Village).

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION ALTERNATIVE # 1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	IMPACT EVALUATION ALTERNATIVE # 3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	IMPACT EVALUATION ALTERNATIVE # 5 BASED ON "DAMAS & SMITH" ALIGNMENT
e) Traffic Operations (Cont'd)		Crowchild Trail (Cont'd) Stage II o 3 lanes each direction with C-D road system. o No direct access from private properties to NB C-D road (i.e. via service road in Motel Village). o No left turns across Crowchild Trail to McMahon Stadium or Motel Village.	Crowchild Trail (Cont'd) Stage II o Similar to Alternative #1.	Crowchild Trail (Cont'd) o No left turn across Crowchild Trail to McMahon Stadium or Motel Village. Stage II o Similar to Stage I above except that dirct access is permitted from private properties to NB C-D road (i.e. C-D also serves as 1-way NB service road). Traffic from 16 Avenue to Crowchild Trail NB is forced to mix with Motel Village traffic.
	24 Avenue/Crowchild Trail Intersection o Existing LOS E during the (PM) peak period. Operational problem: SB to EB left-turn over capacity. Significant vehicle queuing on Crowchild Trail northbound.	24 Avenue/Crowchild Trail Intersection Stage I o No change to existing operating conditions. Stage II o Diamond interchange requires land (and includes L.D.S. church, 3 houses in Banff Trail and Foothills Park).	24 Avenue/Crowchild Trail Intersection Stage I o No change to existing operating conditions. Stage II o Similar to Alternative #1.	24 Avenue/Crowchild Trail Intersection Stage I o Reconstruction of 24 Avenue intersection and lowering of grade will require LDS church and 7 homes along 24 Avenue N. east of Crowchild Trail. Stage II o Diamond interchange requires additional land from Foothills Park.
	Crowchild Trail North of 24 Avenue to 32 Avenue o 2 lanes NB and 2 lanes SB. o Signalized intersection at 32 Avenue N.	Crowchild Trail North of 24 Avenue to 32 Avenue Stage I o L.R.T. in median. o 2 lanes NB. o 2 lanes SB relocated to west from 24 Avenue N. to south of 32 Avenue N. o Land acquisition from University of Calgary. Stage II o Widening of Crowchild Trail to 3 lanes each direction.	Crowchild Trail North of 24 Avenue to 32 Avenue Stage I o No change to existing operating conditions. o L.R.T. along west side of Crowchild Trail (within University of Calgary area). Stage II o Similar to Alternative #1.	Crowchild Trail North of 24 Avenue to 32 Avenue Stage I o Similar to Alternative #1. Stage II o Similar to Alternative #1.
f) Shortcutting (See also 2.3)	o 24 Avenue N. (12,500 ADT) between 19 Street W. and Crowchild Trail. Existing shortcutting problem difficult to solve.	Stage I and II o Little change to existing.	Stage I and II o Similar to Alternative #1.	Stage I and II o Same as Alternative #1.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION		
		ALTERNATIVE # 1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	ALTERNATIVE # 3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	ALTERNATIVE # 5 BASED ON "DAMAS & SMITH" ALIGNMENT
f) **Shortcutting** (Cont'd)	o 20 Avenue N. (ADT N/A) between 19 Street W. and Capitol Hill Crescent. Some shortcutting to 24 Avenue N.			
g) **Spillover Parking** (See also 2.3)	o Spillover parking associated with McMahon Stadium and University of Calgary. o Area is covered by a 2 hour residential parking zone. Residents can petition for restricted parking on streets.	o Potential exists for spillover parking from McMahon Stadium, University of Calgary, and L.R.T. Station. o Problem can be resolved by implementation of restricted residential parking zone in the community similar to zones implemented on the South L.R.T. (e.g. Southwood).	o Similar to Alternative #1 except effect of spillover parking from L.R.T. station area may be reduced.	o Similar to Alternative #3.
4.2 L.R.T. Operation This criterion involves the review of the impact of each alternative alignment on L.R.T. operational characteristics in terms of travel time, safety, operation of park'n'ride/kiss'n'ride and station operation. Evaluation of the interface between the various modes of transport (auto, bus, pedestrian) and L.R.T. will also be undertaken.				
a) **Speed**	N/A	o Normal operating speeds.	o Normal operating speeds.	o Normal operating speeds.
b) **Safety**	N/A	o No impact.	o L.R.T. at-grade crosses intersections on 16 Avenue/Banff Trail (1A Highway) and on 24 Avenue/Crowchild Trail.	o Similar to Alternative #3.
c) **Interface with Park'n'Ride Kiss'n'Ride and Feeder Buses**	N/A	o Transit users will have longer distance to walk to/from station in Motel Village to the park'n'ride, kiss'n'ride and feeder bus transfers located at Stadium area (250 m). However, station serves the Banff Trail community better. o Some buses will stop on Crowchild Trail.	o More convenient for transit users with the station and its related facilities located on the same site. Station serves the University Heights community better.	o Similar to Alternative #1 except that station in Crowchild median is closer to all its related facilities compared to Alternative #1. Station is approximately 70 m. away from its transit related facilities.
4.3 Feeder Bus Services The effects of the alternative alignments on the feeder bus network, frequency of services, station access and catchment areas will be examined.	o Banff Trail #10 (Capitol Hill - Manchester) o Briar Hill #19 (16 Avenue cross-town) o Blue Arrow North (Express Bus) - #102 and #103	o Four cross-town routes and two mainline services (tentative). o Feeder bus frequency: 10-15 minutes - peak 35-60 minutes - off-peak o With all L.R.T. options, some buses will use McMahon Stadium bus terminal, and others will stop on Crowchild Trail.	o Same as Alternative #1.	o Same as Alternative #1.

ALIGNMENT EVALUATION CRITERIA	EXISTING CONDITIONS	IMPACT EVALUATION ALTERNATIVE # 1 BANFF TRAIL-(1A HIGHWAY) ALIGNMENT	IMPACT EVALUATION ALTERNATIVE # 3 16 AVENUE ELEVATED-MODIFIED MAYOR'S TASK FORCE ALIGNMENT	IMPACT EVALUATION ALTERNATIVE # 5 BASED ON "DAMAS & SMITH" ALIGNMENT
4.4 **Transit Ridership** This criterion will examine the impacts that each alignment alternative has in terms of its effects on transit ridership. a) Ridership Potential (Station Catchment Area)	N/A	o 370 dwelling units (walk-on). o Transit ridership = - home base work trips - 2200-2500 peak hour peak direction - daily external work trips - 13,500-15,000	o 125 dwelling units (walk-on). o Transit ridership - same as Alternative #1.	o 200 dwelling units (walk-on). o Transit ridership - same as Alternative #1.
FINANCIAL IMPLICATIONS The following major areas will be identified and costed in the review of the L.R.T. alternatives: o utility relocation, o L.R.T. construction, o road construction, o station costs, o electrical and signal work, o land purchase, o residual value of land (where only a portion of a property purchased by the City is required for L.R.T. and the rest becomes available for resale). Additional cost items will be identified where required.	N/A	Land $ 3.1 Structures 19.0 Stations - McMahon 1.5 - University of Calgary 1.2 Track 5.0 Traction Power 4.7 Roadworks, Trackbed Utilities, etc. 8.0 Signals 3.1 TOTAL $45.6	$ 3.0 17.0 3.4 1.2 5.3 5.1 12.4 3.5 $50.9 Note: o Compensation may be required to McMahon Stadium for L.R.T. R.O.W. o Future costs for tunnel to re-enter Crowchild median in Alternative #3 - $5 to $6 M.	$15.2 16.0 1.9 1.2 5.5 5.2 20.8 3.3 $69.1 Note: o Compensation may be required to McMahon Stadium for L.R.T. and Crowchild Trail R.O.W.

7. COMMUNITY INVOLVEMENT

A public information open house and a general meeting were held in Banff Trail's Branton Junior High School on Saturday, October 20, 1984. The open house and general meeting were advertised on both local newspapers for two consecutive days. Approximately 1,500 notices were distributed to the Banff Trail community and Motel Village by the community association members. In addition, notices were also distributed to the Briar Hill residents in an area bounded by 16 Avenue in the north, 12 Avenue in the south, 19 Street on the east, and Crowchild Trail on the west.

The purpose of the open house and meeting was to present the technical findings of the N.W. L.R.T. Alignment Evaluation Study and to obtain input from the public prior to finalizing the study.

The public was invited to view the exhibits and to ask questions of City staff from 1:00 - 3:00 p.m. An opinion survey, (shown as Exhibit 5) was available for people to indicate their preferred alignment and to register any comments they might have.

At the public meeting, which was scheduled at 3:00 p.m., the various alignments were presented and questions were answered. Approximately 450 people attended the open house and meeting. A total of 393 names were registered in the guest books. The results of the opinion survey are shown in Exhibit 6a, b, c. It is noted that Alternative #3, (Modified Mayor's Task Force) received most support from the Banff Trail community. Alternative #1 received most support from Briar Hill and the Motel Village property owners and business operators.

EXHIBIT 5

MOTEL VILLAGE/BANFF TRAIL A.R.P. - N.W. L.R.T. ALIGNMENT EVALUATION STUDY

OPINION SURVEY

1. Please indicate which of the 3 alignments presented you would find:

   a) most acceptable (circle one only)

   Alternative 1 - Banff Trail (1A Highway) (Station at 23 Avenue N.W./ 1A Highway)

   Alternative 3 - Modified Mayor's Task Force (Station at McMahon)

   Alternative 5 - Damas/Smith (Station in Crowchild median)

   b) second choice (circle one only)

   Alternative 1 - Banff Trail (1A Highway) (Station at 23 Avenue N.W./ 1A Highway)

   Alternative 3 - Modified Mayor's Task Force (Station at McMahon)

   Alternative 5 - Damas/Smith (Station in Crowchild median)

Comments: _____

_____

_____

_____

_____

Please fill in the following:

Name: _____

Address: _____

Property owner of: _____

Resident/business of: _____

Signature: _____

THE CITY OF CALGARY

EXHIBIT 6

EXHIBIT 6a

OPINION SURVEY RESULTS BY ALTERNATIVES* (By Households)

(Not including Motel Village)

	ALTERNATIVE #1 BANFF TRAIL (1A HIGHWAY)			ALTERNATIVE #3 MODIFIED MAYOR'S TASK FORCE			ALTERNATIVE #5 DAMAS & SMITH		
	1st Choice	2nd Choice	Total	1st Choice	2nd Choice	Total	1st Choice	2nd Choice	Total
No. of Households	68	43	111	275	23	298	6	87	93
1st Choice in % (1)	19.48			78.80			1.72		
2nd Choice in % (2)		28.11			15.03			56.86	

(1) Total counted for 1st Choice = 349
(2) Total counted for 2nd Choice = 153

* From survey sheets completed at Open House and sheets returned by Banff Trail Community after the Open House.

EXHIBIT 6b

OPINION SURVEY RESULTS BY AREA* (By Households)

Alignment Alternative	BANFF TRAIL					BRIAR HILL					OTHER AREAS **				
	1st Choice	%	2nd Choice	%	Total	1st Choice	%	2nd Choice	%	Total	1st Choice	%	2nd Choice	%	Total
Banff Trail (1A Highway) #1	46	15.18	37	27.61	83	14	73.68	1	33.33	15	8	29.63	5	31.25	13
Modified Mayor's Task Force #3	252	83.17	18	13.43	270	5	26.32	1	33.33	6	18	66.67	4	25.00	22
Damas & Smith #5	5	1.65	79	58.96	84	0	0	1	33.33	1	1	3.70	7	43.25	8
Total	303	100.00	134	100.00	437	19	100.00	3	100.00	22	27	100.00	16	100.00	43

* From survey sheets completed at Open House and sheets returned by Banff Trail community after Open House.
** Not including Motel Village.

EXHIBIT 6c

OPINION SURVEY RESULTS - MOTEL VILLAGE

	ALTERNATIVE #1 BANFF TRAIL (1A HIGHWAY)		ALTERNATIVE #3 MODIFIED MAYOR'S TASK FORCE		ALTERNATIVE #5 DAMAS & SMITH		No. of Responses
	No. of Responses	%	No. of Responses	%	No. of Responses	%	
1st Choice	9	69.23	3	23.08	1	7.69	13
2nd Choice	1	50.00	1	50.00	0	0	2
Total	10	-	4	-	1	-	15

THE CITY OF CALGARY - TRANSPORTATION DEPARTMENT

EXHIBIT 7a

Perspective - Capitol Hill Crescent
N.W. facing west at 23 Avenue
(Existing Conditions)

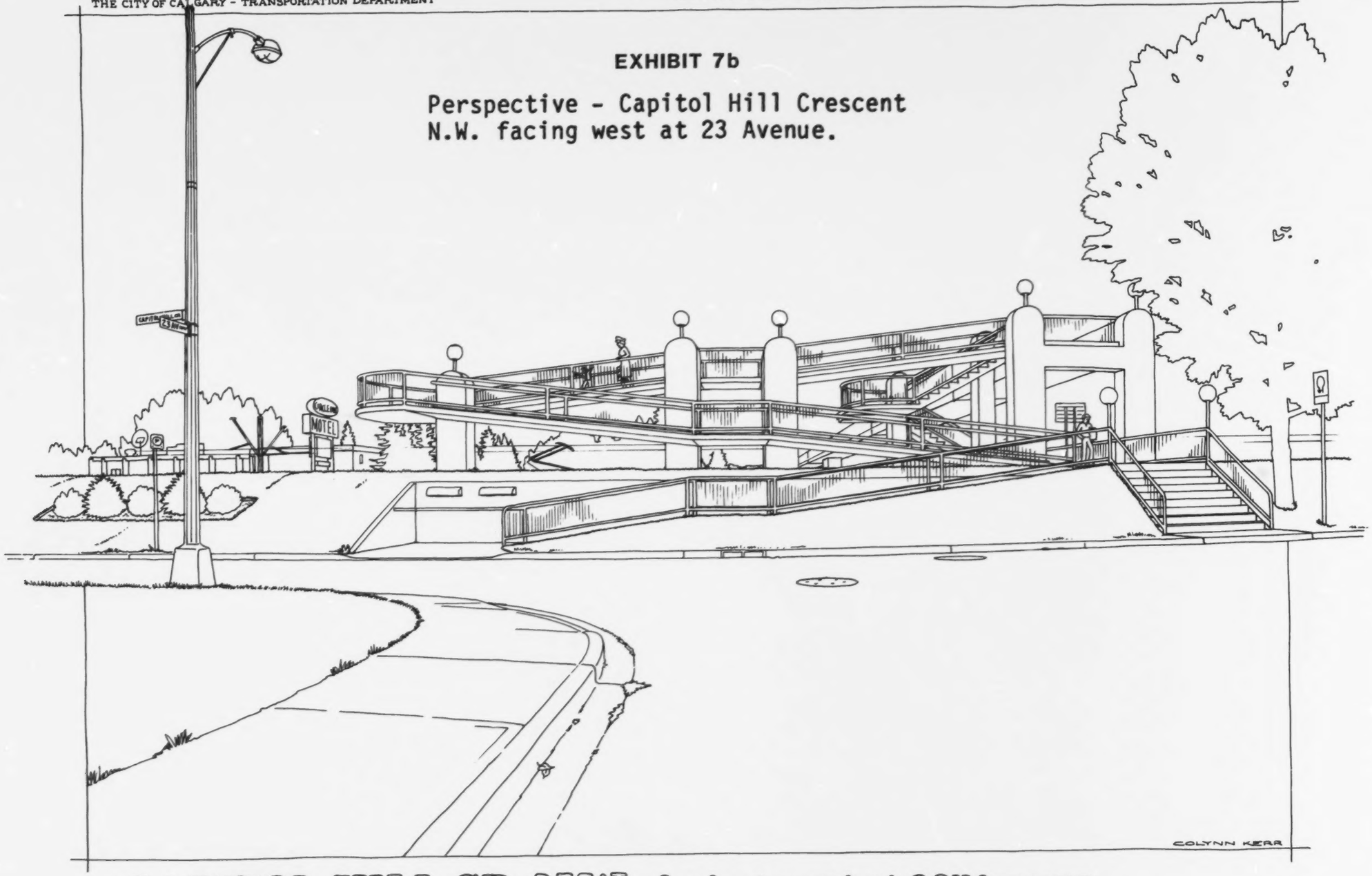
CAPITOL HILL CR. N.W. facing west at 23RD Avenue

N.W. LRT ALTERNATIVE

THE CITY OF CALGARY - TRANSPORTATION DEPARTMENT

EXHIBIT 7b

Perspective - Capitol Hill Crescent
N.W. facing west at 23 Avenue.



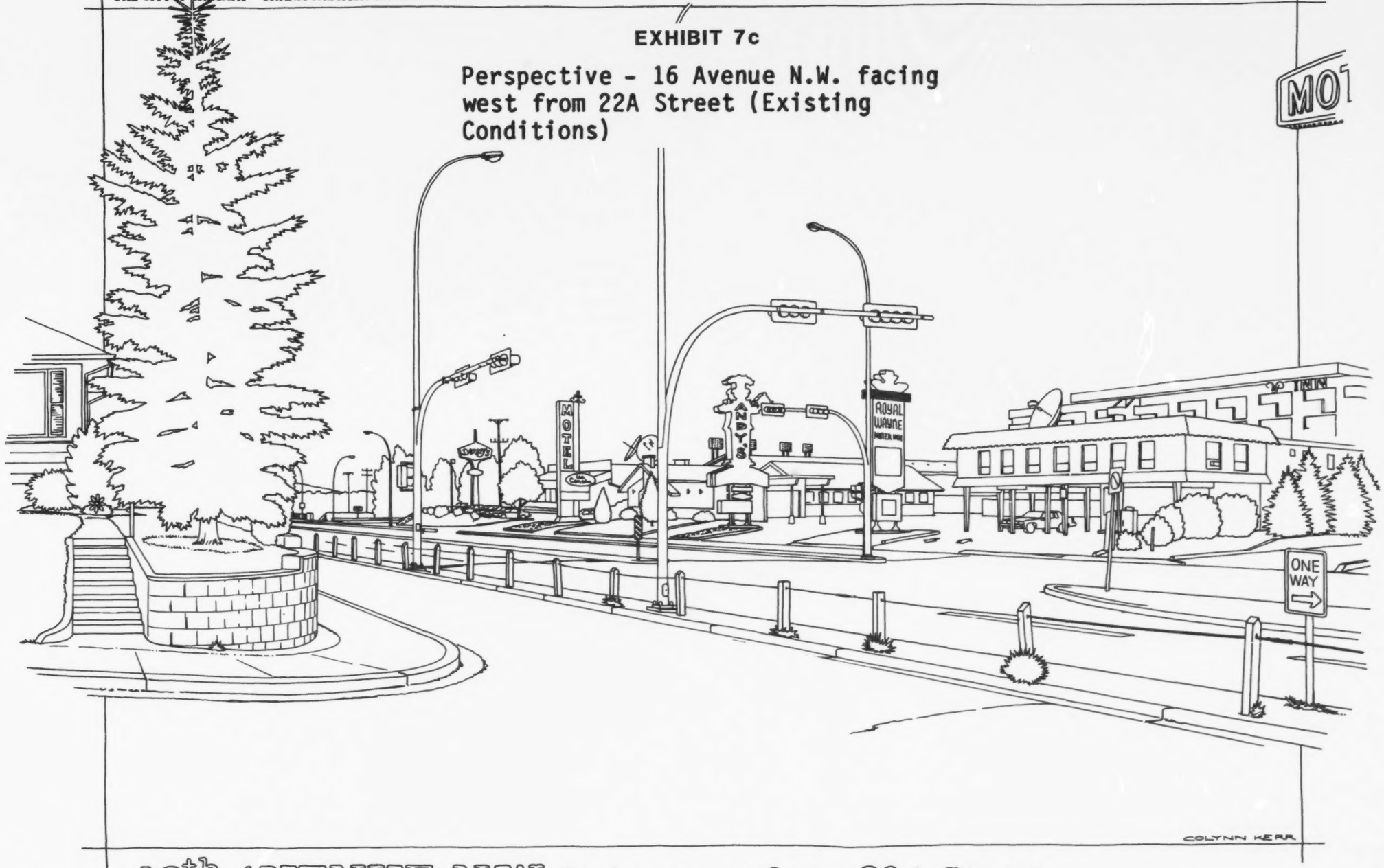
CAPITOL HILL CR. N.W. facing west at 23RD Avenue

N.W. LRT ALTERNATIVE

THE CITY OF CALGARY - TRANSPORTATION DEPARTMENT

EXHIBIT 7c

Perspective - 16 Avenue N.W. facing west from 22A Street (Existing Conditions)



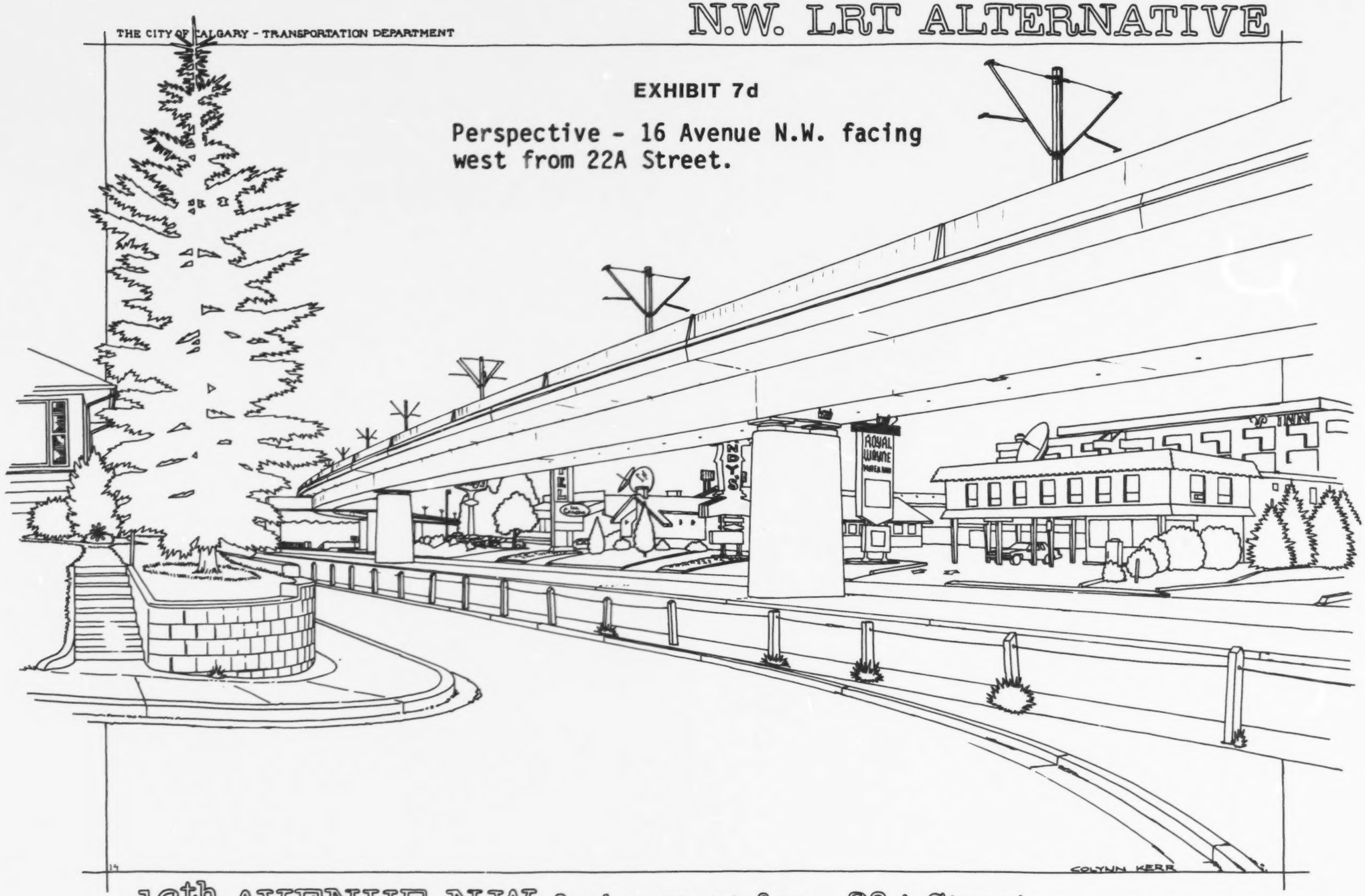
16th AVENUE N.W. facing west from 22A Street

THE CITY OF CALGARY - TRANSPORTATION DEPARTMENT

N.W. LRT ALTERNATIVE

EXHIBIT 7d

Perspective - 16 Avenue N.W. facing west from 22A Street.



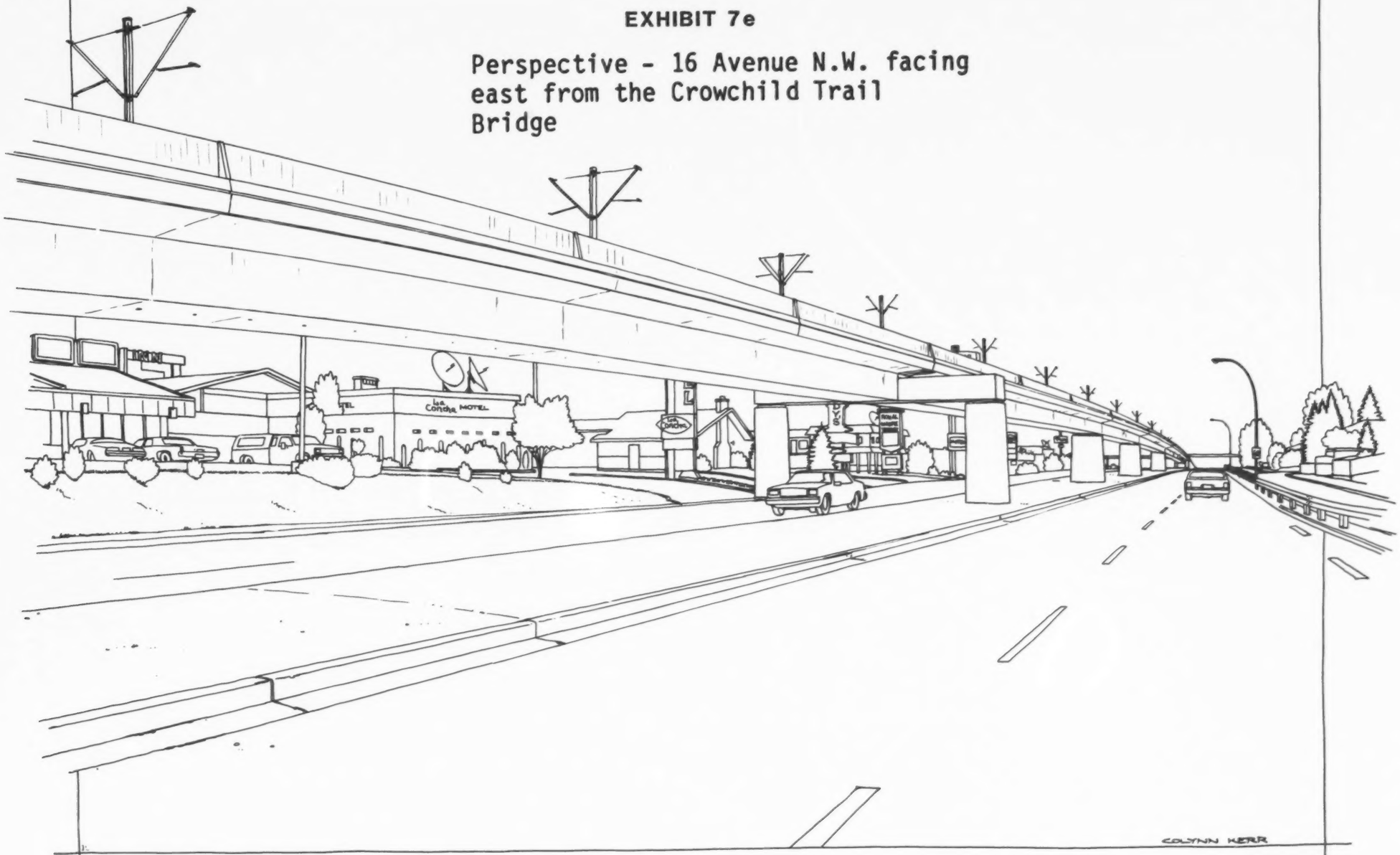
16th AVENUE N.W. facing west from 22A Street

THE CITY OF CALGARY - TRANSPORTATION DEPARTMENT

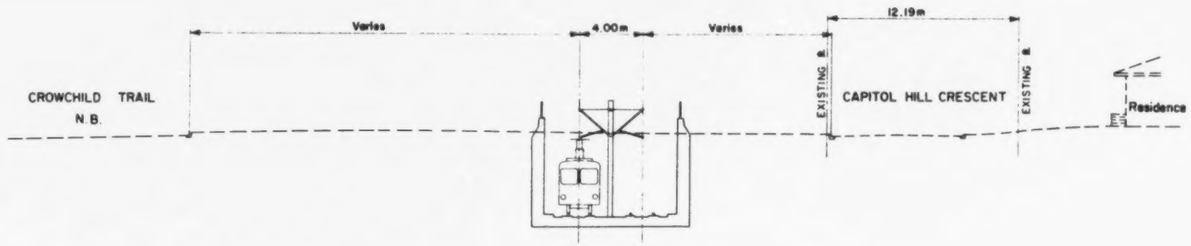
N.W. LRT ALTERNATIVE

EXHIBIT 7e

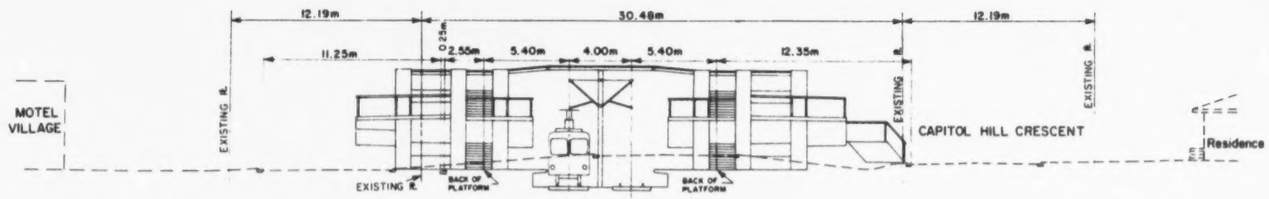
Perspective - 16 Avenue N.W. facing east from the Crowchild Trail Bridge



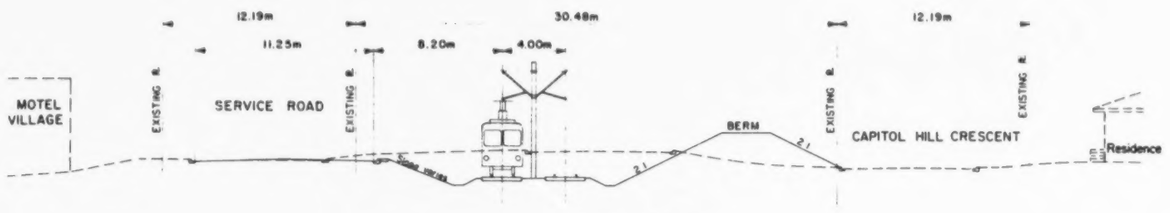
16th AVENUE N.W. facing east from the Crowchild Trail Bridge



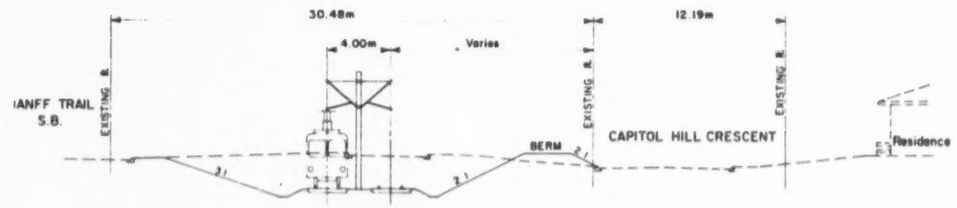
SECTION A-A
SOUTH OF 24 AVENUE N.W.



SECTION B-B
AT 23 AVENUE N.W.



SECTION C-C
AT 20 AVENUE N.W.



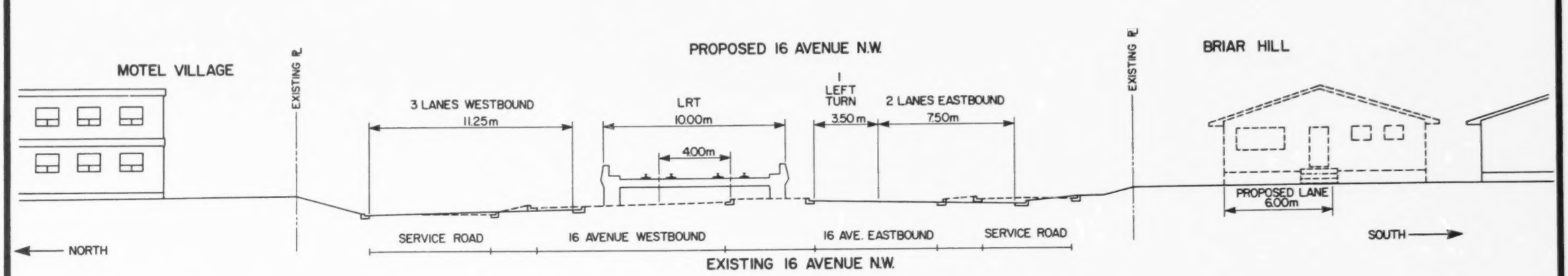
SECTION D-D
AT TYE STREET N.W.

EXHIBIT 8a

Cross-sections along Banff Trail (1a Highway) alignment

Note: Location of section is shown in Exhibit 10a

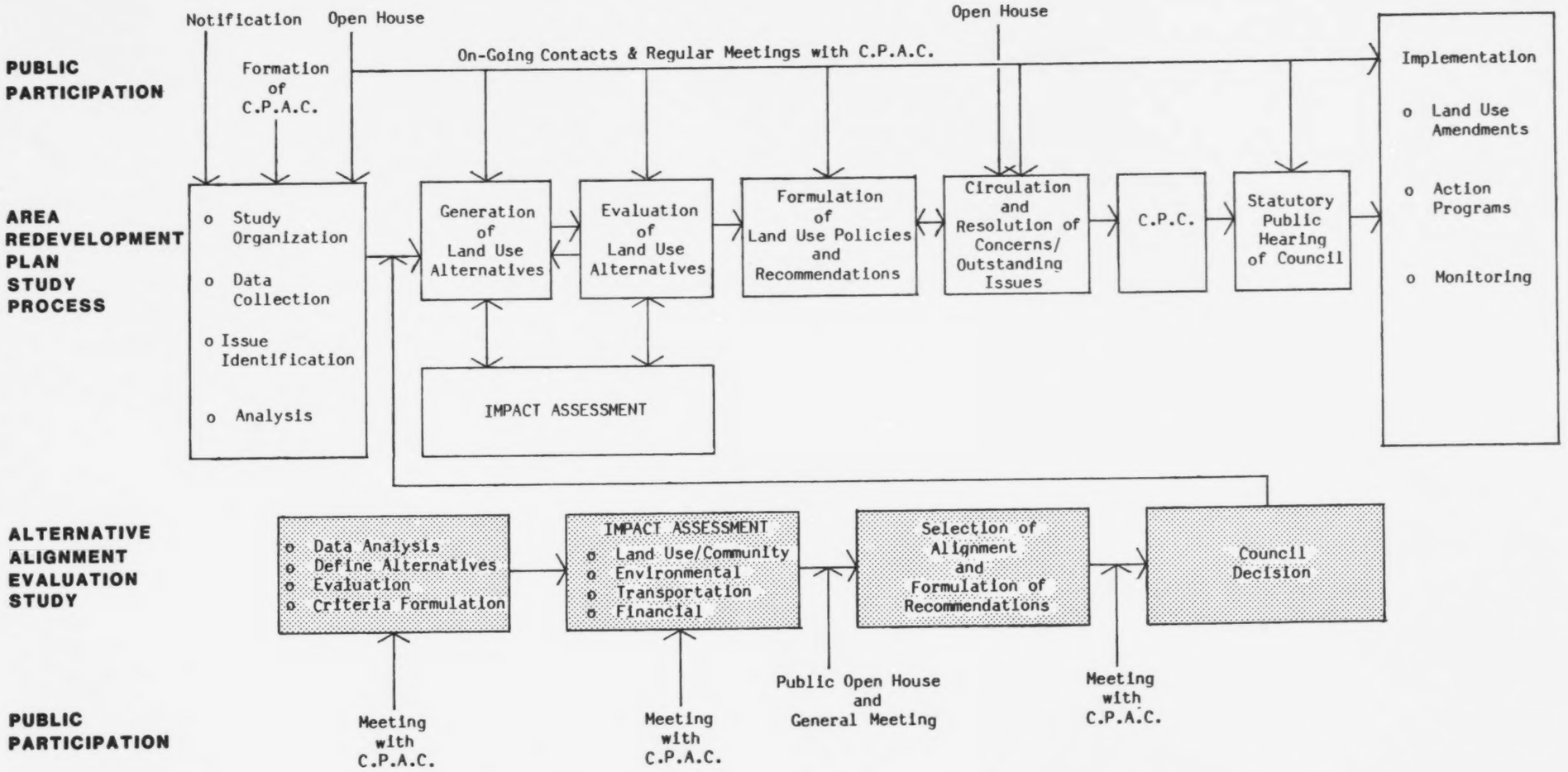
EXHIBIT 8b
Cross-section along 16 Ave. N.W. at 22 St. N.W.



SECTION E-E'
AT 22 STREET N.W.

Note: Location of section is shown in Exhibits 10b&10c

EXHIBIT 9
PLANNING PROCESS



MOTEL VILLAGE/ BANFF TRAIL AREA REDEVELOPMENT PLAN – NORTHWEST LRT ALIGNMENT EVALUATION STUDY

Appendix 1

BACKGROUND INFORMATION

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

October 1984

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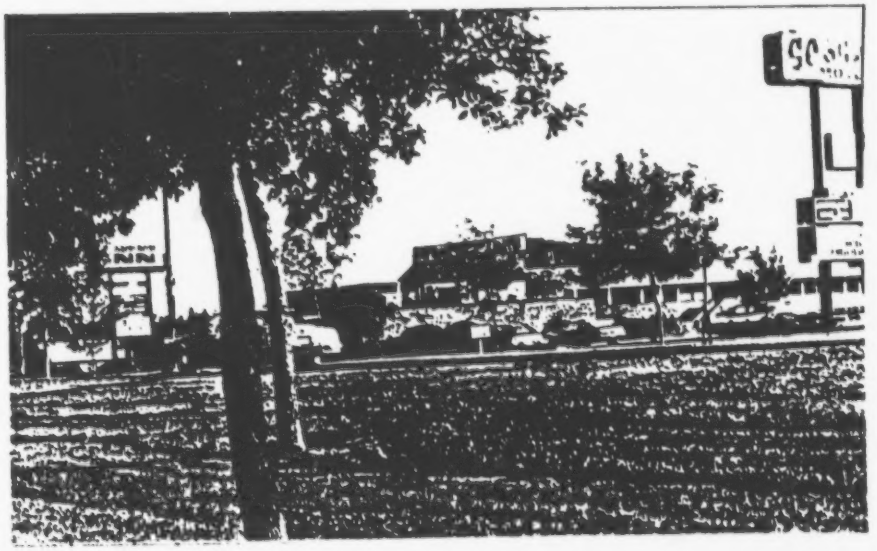


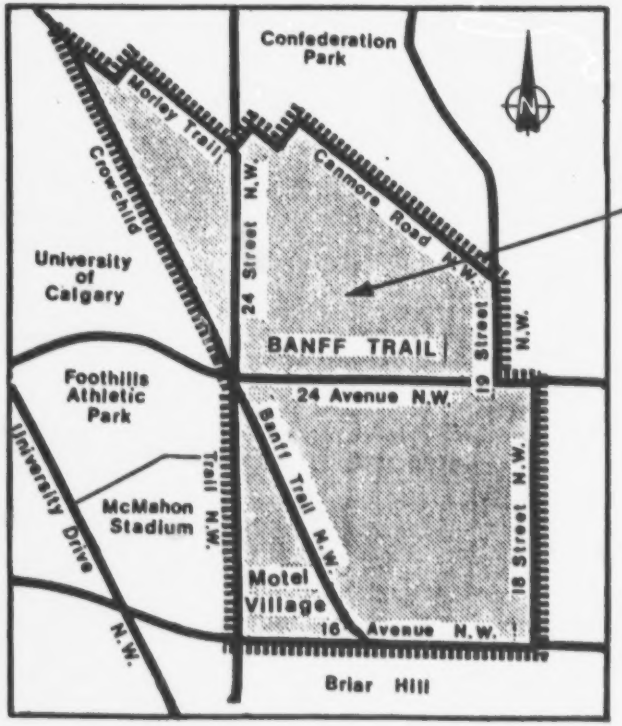
PREFACE

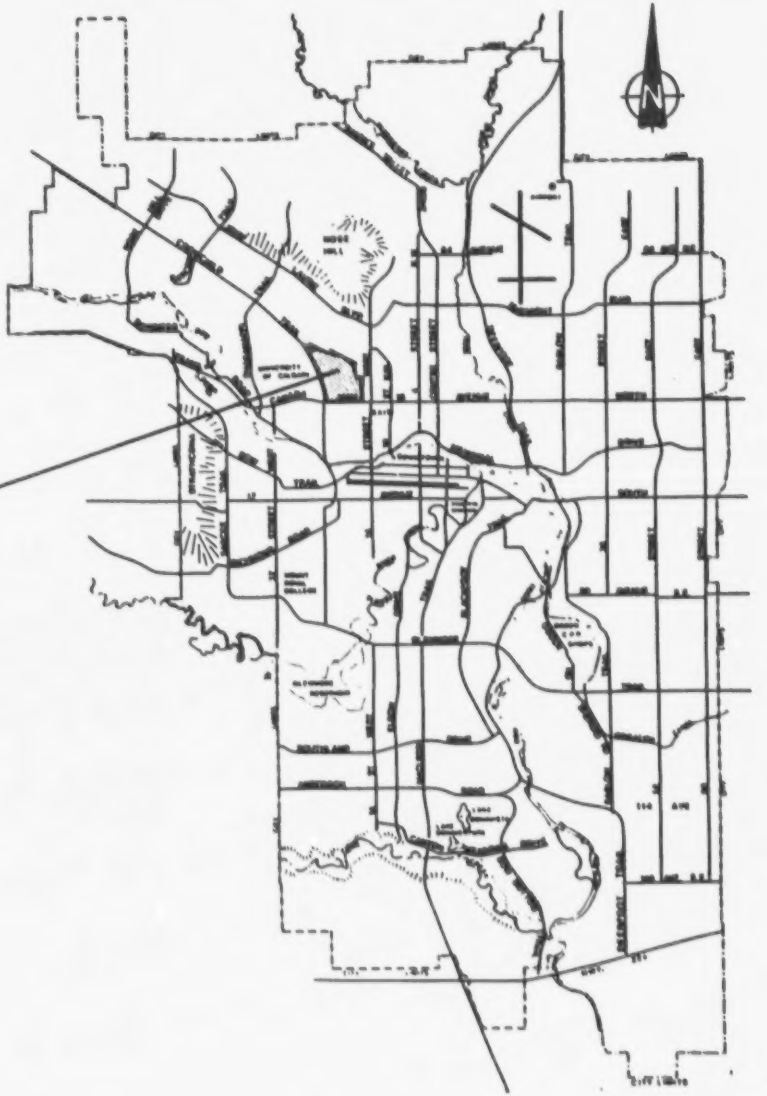
This section provides the background information which outlines the baseline data regarding land use characteristics, community profile and major issues in the study area. As well, a brief history of Council decisions and policy documents which sets the planning context has also been included. Due to the significant difference between Motel Village and Banff Trail, these two areas are described separately.

MAP No 1

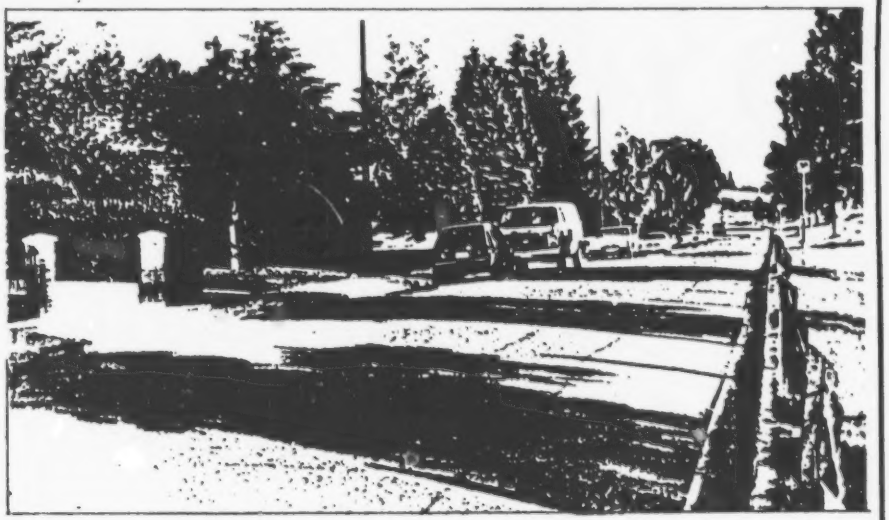
TITLE
LOCATION

LOCATION OF STUDY AREA





CITY CONTEXT

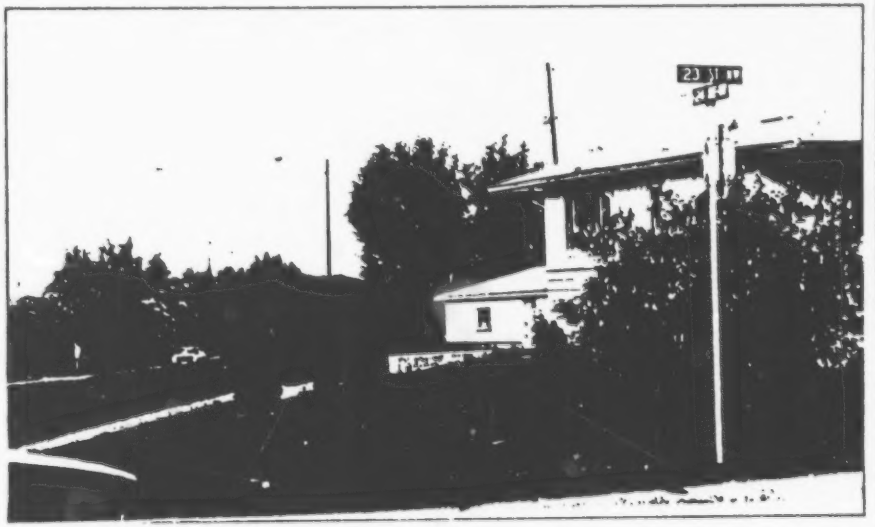


BACKGROUND INFORMATION

1. BANFF TRAIL - MAJOR CHARACTERISTICS AND COMMUNITY PROFILE

1.1 LOCATION

The community of Banff Trail is located north of 16th Avenue N.W., between Crowchild Trail and 18th Street N.W. Being within 5 kilometres (3 miles) of Downtown, residents have excellent access to Downtown via Crowchild Trail, 19th Street, 16th Avenue, Centre Street and Memorial Drive. It is considered to be one of the most desirable residential neighbourhoods in the city because of its close proximity to many of the city's major institutional and recreational facilities such as the University of Calgary, S.A.I.T., Alberta College of Art, Jubilee Auditorium, McMahon Stadium, Foothills Athletic Park and Confederation Park.



MAP No. 2

TITLE **GENERALISED LAND USE -BANFF TRAIL**

LEGEND

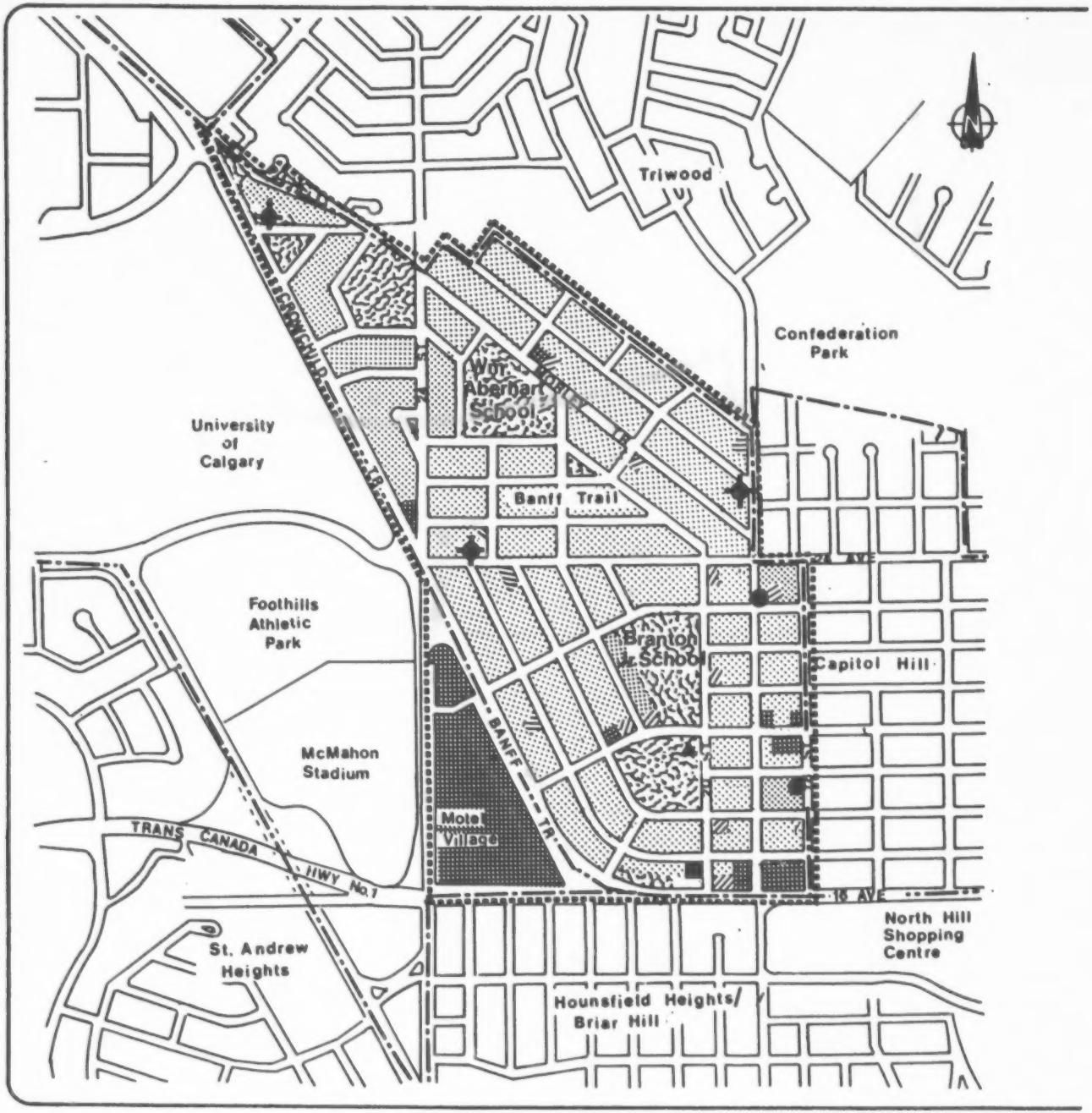
- LOW DENSITY RESIDENTIAL-SINGLE FAMILY AND DUPLEX
- MEDIUM DENSITY RESIDENTIAL-MULTI FAMILY
- COMMERCIAL
- INSTITUTIONAL
- OPEN SPACE/ SCHOOL SITE
- COMMUNITY HALL
- DAY CARE CENTRE
- CHURCH
- FIRE HALL
- COMMUNITY BOUNDARIES
- STUDY AREA BOUNDARIES

DATE
October 1984

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

0 1000' 2000'
0 305m 610m

4



1.2 EXISTING LAND USE AND LAND USE DESIGNATIONS

Banff Trail, with an area of approximately 129 hectares (328 acres), was annexed to the city in 1910 and developed in the 1950's. In general, it is a well-preserved, low density residential neighbourhood with a significant amount of mature vegetation. The following sections provide a more detailed information on the major land use types in Banff Trail.

1.2.1 Residential

Although Banff Trail is characterized by single-detached family housing which occupies 56 per cent of the total community area, only 10 per cent of the area is designated "R-1" (Residential Single-Detached District). Due to its close proximity to Downtown, University of Calgary and S.A.I.T., a considerable number of the original single-family homes have been converted to duplexes. In addition to the converted housing, new semi-detached houses, duplexes and infill housing, taking advantage of the "R-2" designation are gradually replacing some of the older structures in the community.

There are a few pockets of small multi-family developments with RM-4 and RM-5 designations (Residential Medium Density Multi-Dwelling District) located close to local commercial nodes and adjacent to 16th Avenue N.W. The apartment units represent only three per cent of the total housing units in the community and occupy less than two per cent of the total area.

Figure 1 LAND USE DISTRIBUTION
(LAND USE CATEGORIES AS PERCENTAGE OF AREA)

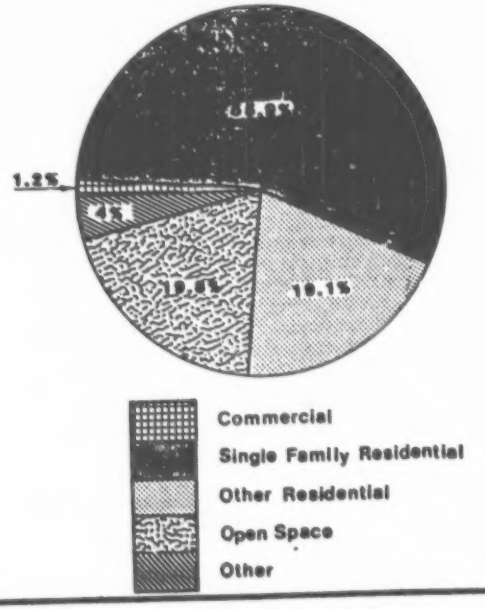
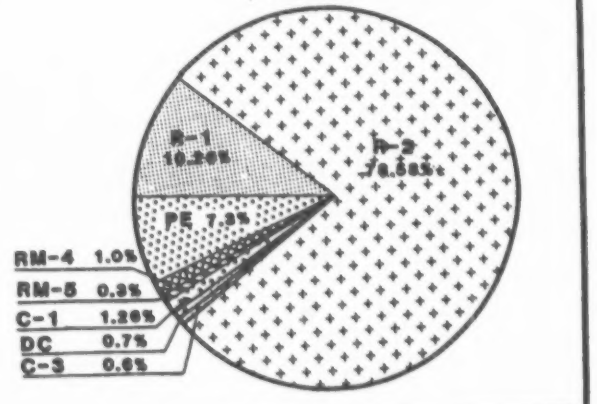


Figure 2 DISTRIBUTION OF LAND USE DESIGNATIONS
July 1984



MAP No 3

TITLE **LAND USE DESIGNATIONS**

LEGEND

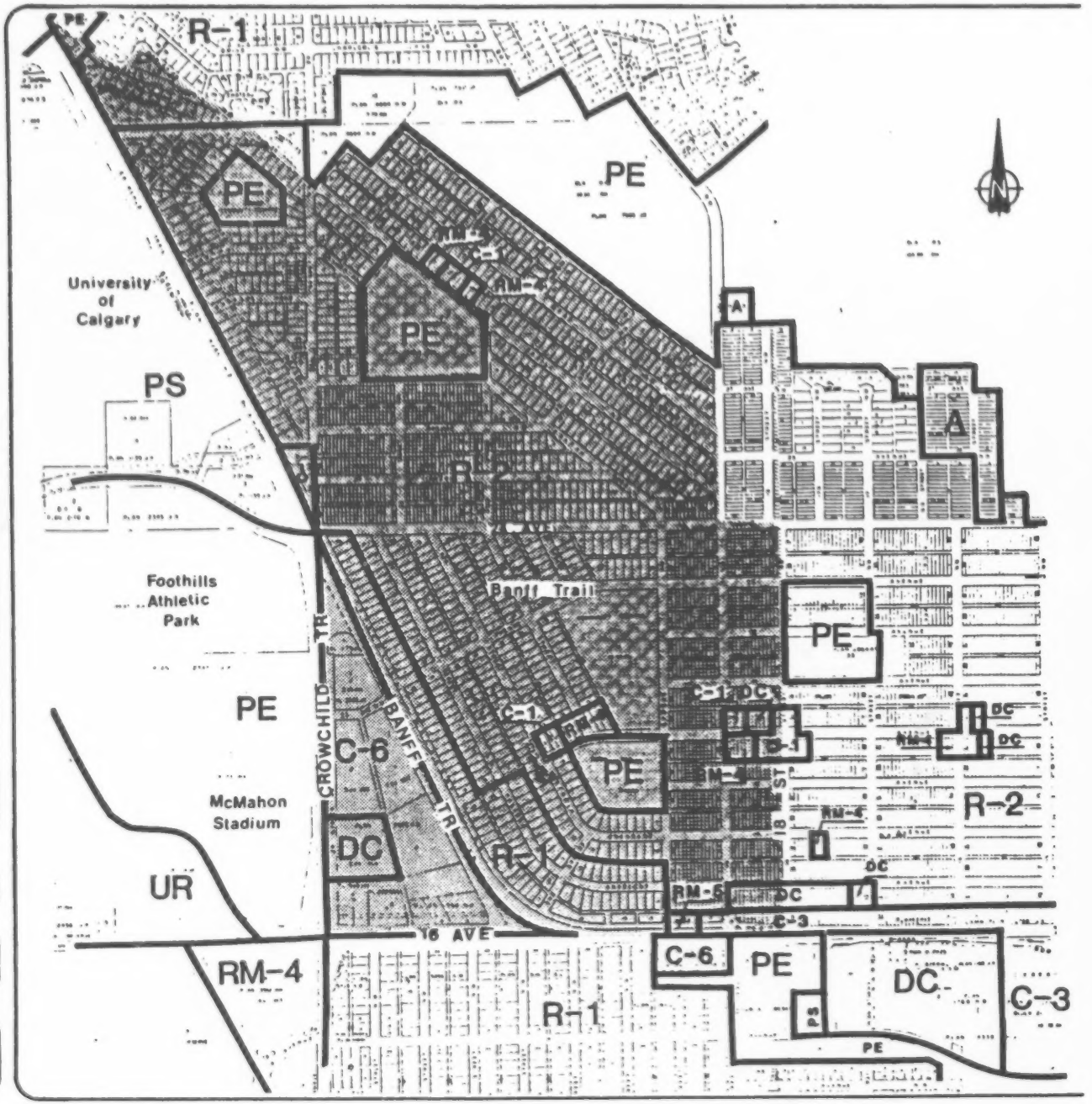
R-1	RESIDENTIAL SINGLE-DETACHED
R-2	RESIDENTIAL LOW DENSITY
RM-4	RESIDENTIAL MEDIUM DENSITY MULTY-DWELLING
RM-5	RESIDENTIAL MEDIUM DENSITY MULTY-DWELLING
C-1	LOCAL COMMERCIAL
C-2	GENERAL COMMERCIAL
C-3	HIGHWAY COMMERCIAL
DC	DIRECT CONTROL
PE	PUBLIC PARK, SCHOOL AND RECREATION

DATE **October 1984**

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

0 500' 1000'
0 152m 305m

6



1.2.2 Commercial

The present commercial uses under "C-1" and "C-2" designations represent less than two per cent of the total area. Most of the commercial uses are neighbourhood oriented, scattered in pockets along 20th Avenue N.W. and Morley Trail. The "C-2" and "D.C." sites on 16th Avenue are highway oriented uses, which include a restaurant, a hotel and its parking area.

1.2.3 Open Space and Community Facilities

Banff Trail is well served by local parks. Including the school grounds, it has a total of 12.36 hectares (30.5 acres) of community open space which represents 3.66 hectares per 1,000 population (9.03 acres/1000), well above the city's current open space standard of 2.2 hectares per 1,000 population (5.5 acres/1000). The open space is well distributed throughout the community which also has easy access to the regional open space such as North Capitol Hill Park and Confederation Park.

Community facilities within Banff Trail include the Banff Trail community hall, two day care centres, the Banff Trail Senior Citizen Centre, three churches and a fire hall. The area also has good access to the adjacent recreational facilities such as the Foothills Athletic Park, McMahon Stadium and Confederation Golf Course. Cultural facilities are also available at the University of Calgary.

1.2.4 Schools

There are three public schools serving Banff Trail. They are:

a. William Aberhart Senior High School, located at Morley Trail and 23rd Street N.W. It has a capacity of 1,615 with a present enrollment of 917 students (February, 1984).

b. Branton Junior High, located at 20th Street and 23rd Avenue N.W., has a capacity of 660 with a current enrollment of 543 students (February, 1984).

c. Banff Trail Elementary, at Canmore Road and Cochrane Road N.W., has a capacity of 500 with an enrollment of 309 students (February, 1984).

Similar to other inner city communities, Banff Trail schools are experiencing declining student enrollments.

Figure 3

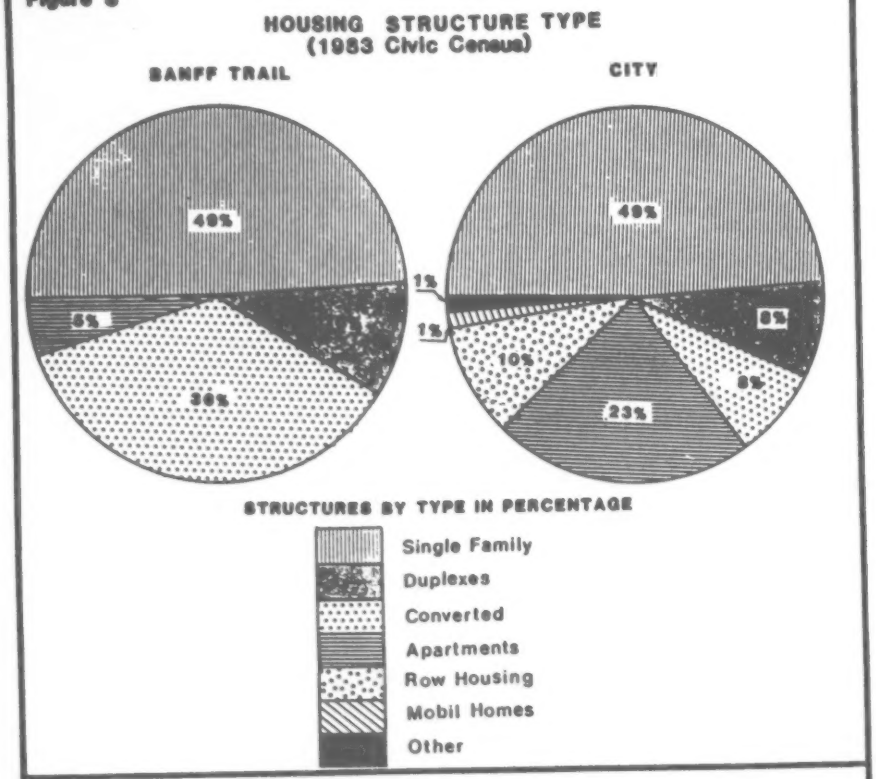
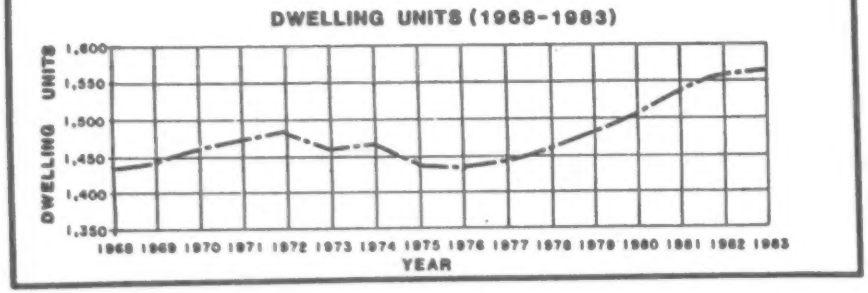


Figure 4



1.3 HOUSING STRUCTURE

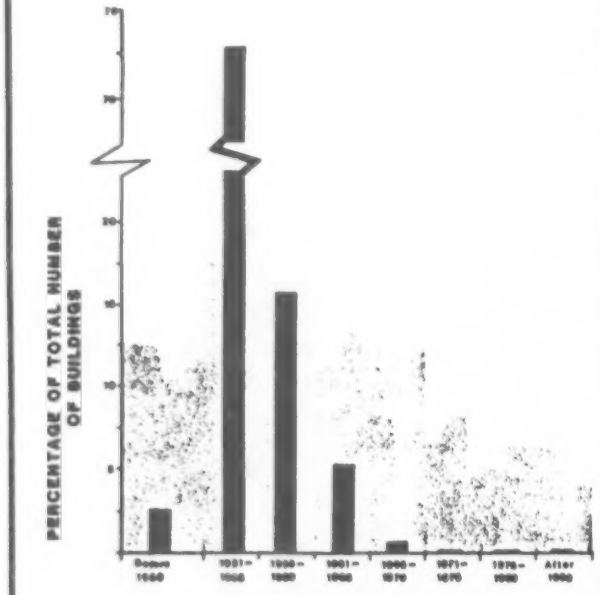
The 1983 Civic Census showed that single-family housing the most predominent housing type in the community, followed by converted dwelling units. Duplexes and apartment units constitute only six per cent and three per cent respectively of the total dwelling units. The number of total dwelling units has been increasing steadily, primarily due to the increasing number of converted dwelling units in the community. The majority of the houses (over 80 per cent) are twenty-five years old and were built prior to 1960.

1.4 SOCIO-DEMOGRAPHIC CHARACTERISTICS

The major characteristics and trends of the Banff Trail community's demographic and social structure are:

Figure 5

BUILDING AGE



- declining population,
- decline in the average household size,
- decline in the 0-14 year old age group,
- increasing proportion of senior citizens in the community,
- conversion of existing housing to two-family or more units, which in turn leads to an increase in the number of renters in the community.

Many of these socio-demographic changes in Banff Trail are also evident in other inner city communities.

Figure 6

POPULATION (1968-1983)

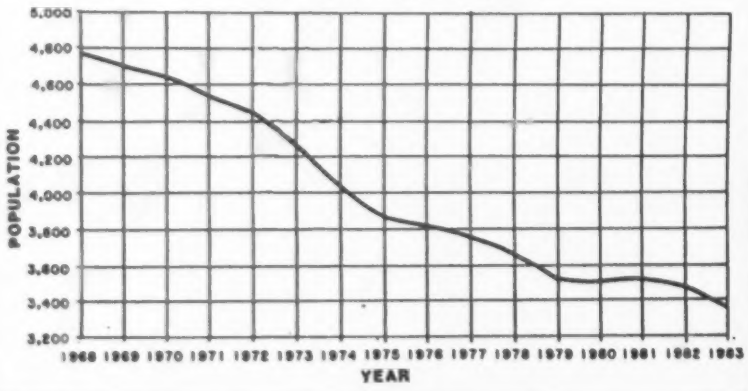


Figure 7

OCCUPANCY RATE

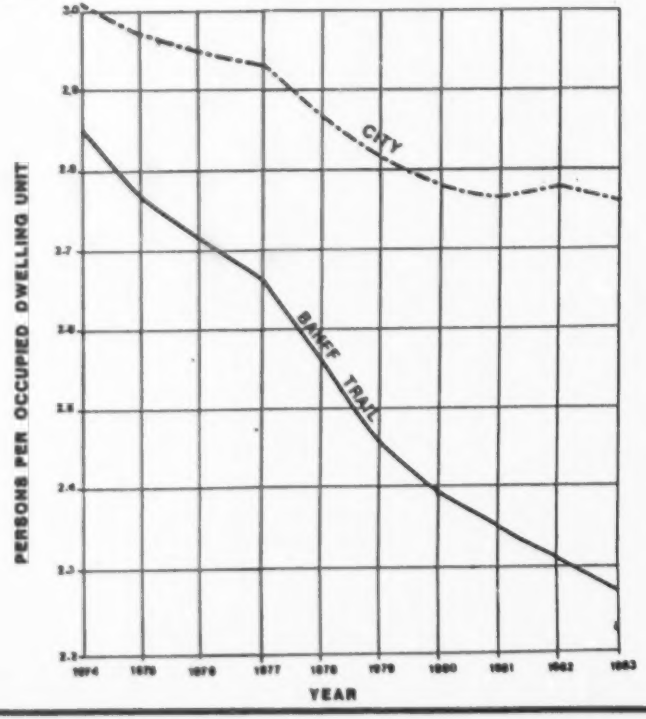
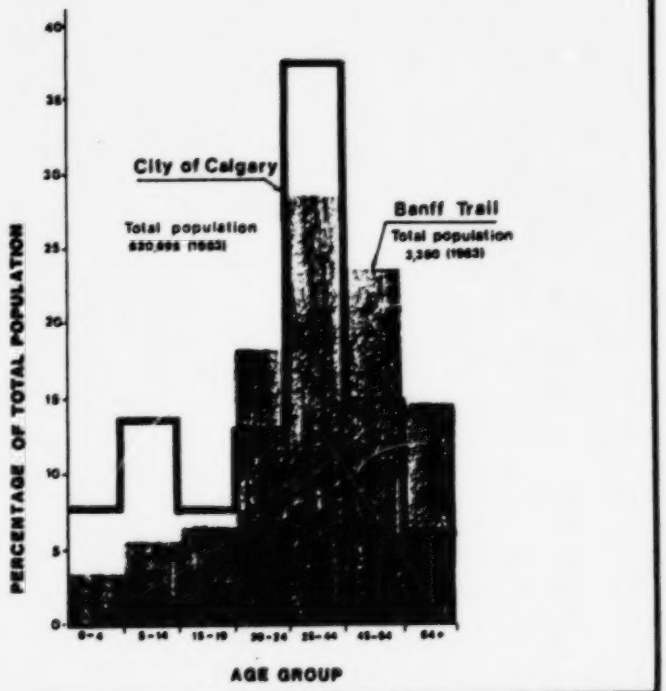


Figure 8



AGE GROUPS, 1983

AGE GROUPS	0-4	5-14	15-19	20-24	25-44	45-64	65+	TOTAL
MALE	60	90	105	335	570	355	215	1735
FEMALE	50	90	115	280	395	440	275	1640
TOTAL	115	180	220	615	965	795	490	3380

Source: 1983 Civic Census

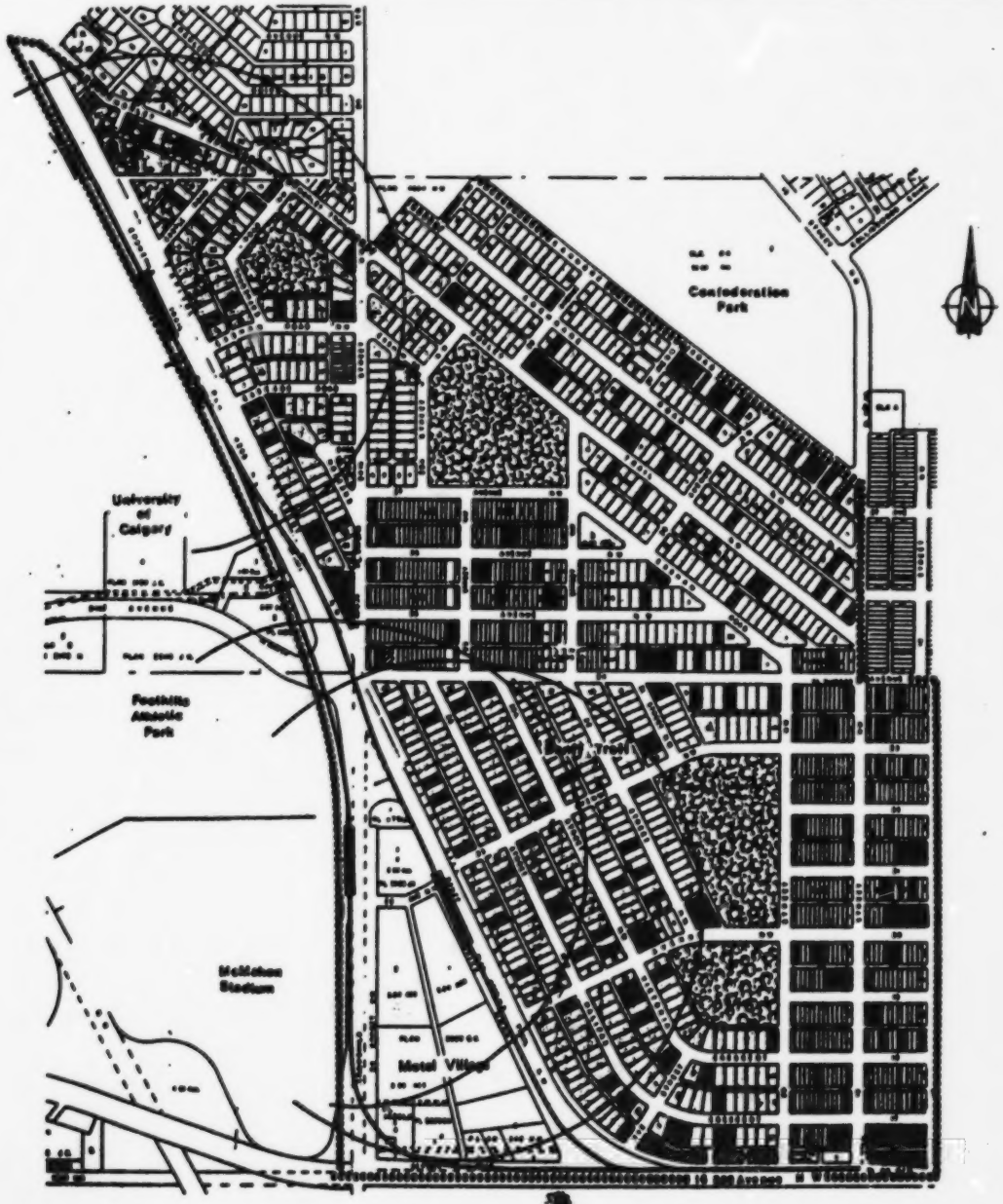
1.4.1 Population and Household Size

The population in Banff Trail has been gradually declining over the years as the community matured and children moved away from their homes. The community is also experiencing the nation-wide trend of declining household sizes. In spite of the rising number of dwelling units, the community has not been able to maintain its historical population levels. The 1983 Civic Census showed that Banff Trail had a total population of 3,381 compared to 4,263 in 1973, a decline of 21 per cent over ten years.

Compared with city averages, the community has a smaller proportion of the 0-14 year old age group and a larger proportion of the 64+ age group. This population characteristic is also very typical for other inner city neighbourhoods.

Although the number of school children has dropped over the years, there is a significant number of University and S.A.I.T. students living in the area. This would account for the relatively high proportion of the young adults aged 20-24 living in the community.

Similar to the trends of other inner city communities, Banff Trail is also experiencing a gradual decline in the average household size (occupancy rate per dwelling unit). The average 1983 household size was 2.27 persons compared to the city's average of 2.76 persons.



MAP No. 4

TITLE
OWNERSHIP PATTERN BANFF TRAIL

LEGEND

- Owner occupied
- Absentee
- City owned
- City Parks
- L.R.T. Alignment, Station and 400m radius

DATE **August 1984**

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

0 500' 1000'
0 152m 305m

1.4.2 Family Income and Employment by Occupation

The 1981 Census of Canada indicated that the average family income in Banff Trail was $32,811 compared to $33,462.00 in the city (i.e. 2 per cent below the city average). The 1981 City of Calgary Employment Study provided the following estimated employment by occupation in the community:

Occupation	Per cent
- Managerial Administration	8.5
- Professional Technician	23.3
- Clerical, Secretarial	14.5
- Construction	6.0
- Trade and Labour	11.2
- Sales and Services	25.9
- Travel Sales and Services	10.0
- Other	.6

1.4.3 Home Ownership Pattern and Length of Stay in the Community

Home ownership is usually perceived as an important facet in the stability of a community. The 1983 Civic Census indicated that 58 per cent of the total dwelling units within the community were owner-occupied compared with the city's average of 57 per cent. The mobility of the residents is generally lower compared to the city average. The relatively high percentage of long-time residents in the community may, to some extent, account for the residents' strong attachment to their community. The 1983 Civic

Figure 9

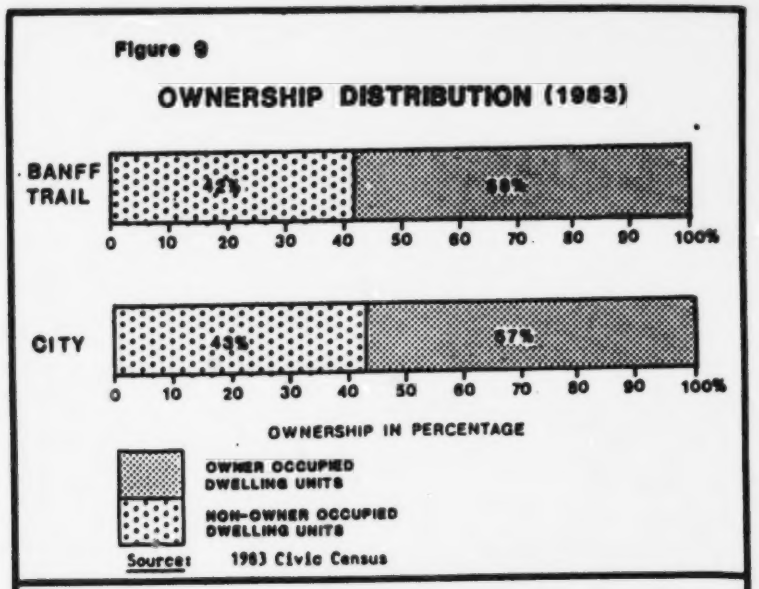
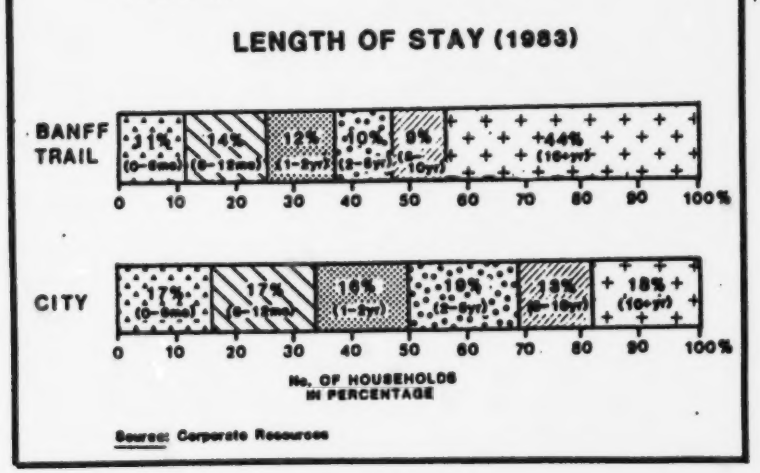


Figure 10



Census showed that approximately 53 per cent of the residents had been living in the area for more than five (5) years compared to only 31 per cent of the residents in the city. It is also interesting to note that compared with the city, the vacancy rate for the various types of housing in the area is significantly lower.

Intensification of existing residential or commercial uses in the community through land use redesignations (rezoning) does not seem to be appropriate due to the following factors:

a) There is a large reservoir of under-developed sites with appropriate land use designations (zoning) that could provide additional housing units to accommodate a significant population increase in the community;

b) Rejuvenation of the housing stock through redevelopment is not necessary as the housing quality in the area is generally good;

c) Most of the residents and property owners show strong support to maintain the existing quality and character of the neighbourhood; and

d) Redesignation to accommodate higher density developments and other uses would cause unnecessary speculation and instability in the community, which could also lead to deterioration of the neighbourhood.

e) The internal road system in the community does not favour high density development close to the L.R.T. station.

1.5 DEVELOPMENT POTENTIAL

A significant portion of the "R-2" area (Low Residential Density District) in the community is currently occupied by single-family housing. There are also a few small undeveloped RM-4 (Residential Medium Density Multi-Dwelling District) sites in the community.

If the existing under-developed sites were to be redeveloped to their full potential, as permitted under their existing land use designations (zoning), an additional 804 dwelling units, representing an increase of 39 per cent in the total dwelling units, could be located in the community. Using the 1983 Banff Trail's average occupancy rate of 2.27 persons per dwelling unit, the area could accommodate a total population of 4,701 compared to the 1983 population of 3,381. This would result in a potential population density of 15 person per acre, compared to the existing density of 11 persons per acre.

It is anticipated that new developments in the area would primarily be duplexes, semi-detached houses, low scale infill houses (e.g. single-family detached dwellings on split-lots) and converted dwellings as permitted by the land use designations (zoning). The rate of redevelopment is expected to be very gradual, as very few vacant sites are available for new developments and the existing housing stock is in good to excellent condition, which would not warrant redevelopment in the near future. It is expected that conversions will make up the majority of the increase in housing stock in the near future.

1.6 COMMUNITY ISSUES AND CONCERNS

Community issues and concerns described in this section were primarily derived from information gathered at open houses, informal meetings with local residents and meetings with the Community Planning Advisory Committee. Information gathered from questionnaires distributed at the open houses have also been included.

1.6.1 Neighbourhood Preservation

Preservation of the existing quality and character of the community is one of the major community objectives in planning for the area. Most Banff Trail residents consider the area to be a very desirable, attractive and convenient place to live, and are supportive of preserving the existing quality and character of the neighbourhood. However, the community is becoming quite concerned over the increasing number of absentee landowners and renters in the community, deterioration of isolated properties in anticipation of redevelopment by some landowners and redevelopment pressures generated from Motel Village and the proposed L.R.T. facility. Some residents suggested that the physical quality of the neighbourhood can be improved if the city can provide better maintenance of the streets and lanes.

1.6.2 Redevelopment Pressures and Neighbourhood Stability

In the absence of Council approved land use and development policies, different perceptions of redevelopment opportunities in Motel Village and areas adjacent to the proposed L.R.T. station have caused some speculation and instability in the community. Most residents have stressed the existing land use designations in Banff Trail should be reaffirmed and development guidelines be established. The adoption of the Banff Trail/Motel Village Area Redevelopment Plan, currently under preparation, would curtail the "actual" or "perceived" redevelopment pressures in the community and would maintain the existing neighbourhood character.

1.6.3 Redevelopment in Motel Village

Most residents seemed satisfied with the present level of services offered by the local businesses in the area and would oppose any commercial intrusion from Motel Village into the community.

Although most residents acknowledged that Motel Village may require upgrading, they were concerned that uncontrolled commercial redevelopment in Motel Village would generate excessive traffic and on-street parking problems in the community. The interface between Motel Village and the neighbouring R-1 District is also considered important. In order to minimize potential visual impact and overshadowing, it would be necessary to regulate the building height, building finish and landscaping provisions of new projects in Motel Village.

MAP No. 5

TITLE
MAJOR ISSUES

LEGEND

- INCREASES IN TRAFFIC VOLUME & NOISE LEVEL
- OVERFLOW PARKING DURING FOOTBALL GAMES
- OVERFLOW PARKING FROM UNIVERSITY
- CONGESTED INTERSECTIONS
- REDEVELOPMENT PRESSURES

DATE **October 1984**

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

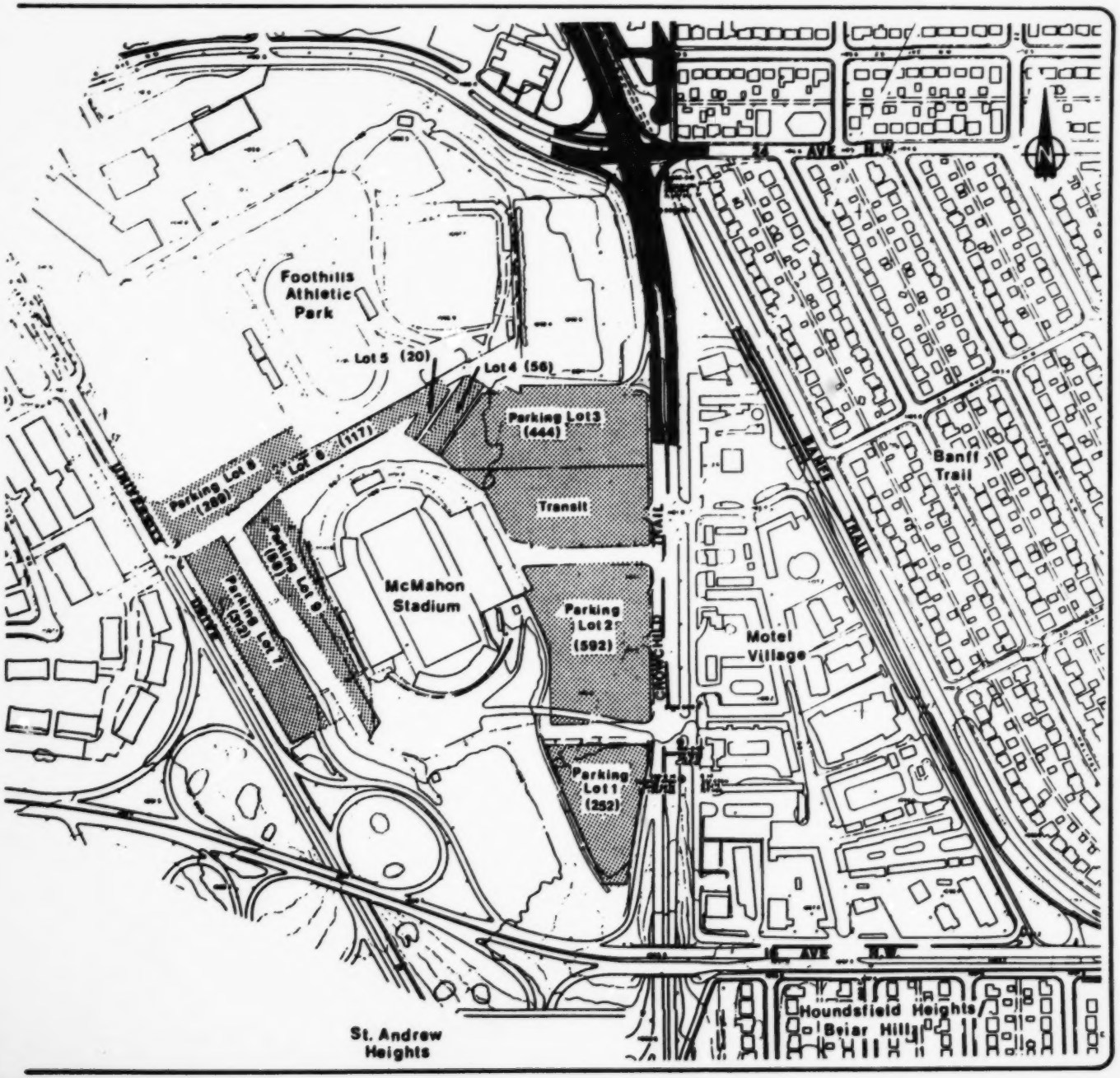
0 1000' 2000'
0 305m 610m

1.6.4 Traffic and Parking Problems

The traffic and parking problems resulting from the adjacent facilities, i.e. the Stadium and University, were acknowledged by many local residents. Ongoing discussions by the Transportation Department with Banff Trail and other adjacent communities around the Stadium and University to resolve the traffic related problems have been conducted and a revised residential parking zone to restrict non-local resident on-street parking has been implemented. Other mitigating measures and controls will be investigated as part of the planning process in the area.

1.6.5 L.R.T. and Its Related Impacts

According to survey results and discussions with concerned residents, most of the residents favoured the L.R.T. station and alignment to be located away from the community and west of Motel Village, i.e. along Crowchild Trail or through the Stadium. Residents were apprehensive that the city's preferred 1A Highway alignment with a station located on 23rd Avenue would tend to aggravate the existing parking and traffic problems in the community. In addition, many perceived that the area in close proximity to the station would be subject to continuous pressure for redevelopment which might eventually change the quality and character of the neighbourhood. Concerns over possible vibration, noise, visual intrusion and loss of privacy were also cited by local residents.



MAP No. 6

TITLE **EXISTING PARKING FACILITIES IN McMAHON STADIUM**

LEGEND

DATE **October 1984**

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

0 200' 400'
0 63m 127m

MAP No. 7

TITLE
TRANSPORTATION NETWORK

LEGEND

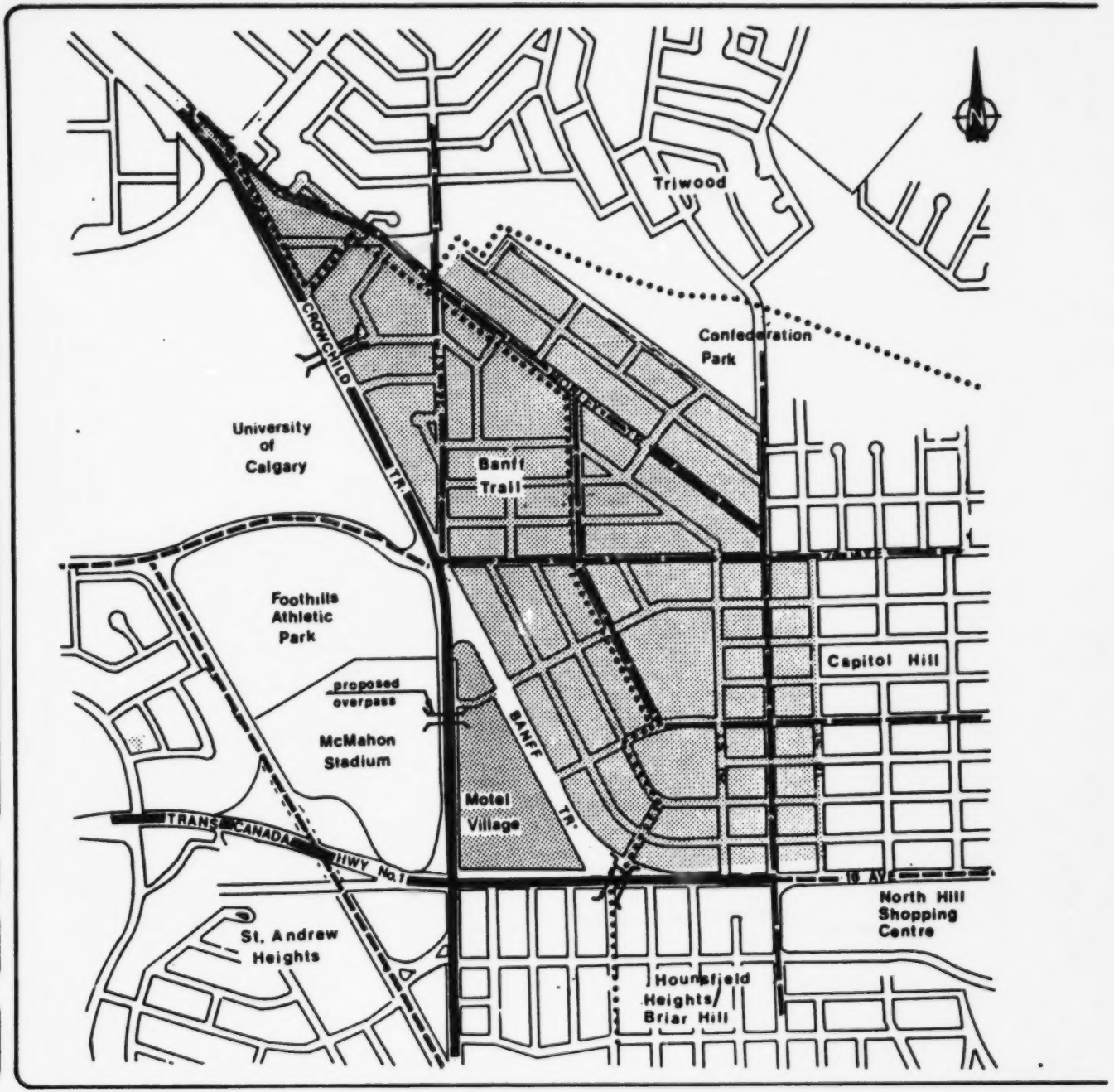
- FREEWAYS
- MAJOR STREETS
- COLLECTOR STREETS
- PEDESTRIAN WALKWAYS
- PEDESTRIAN OVERPASS

Note:
Roadway Standards as shown in Bylaw 3M82

DATE
October 1984

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

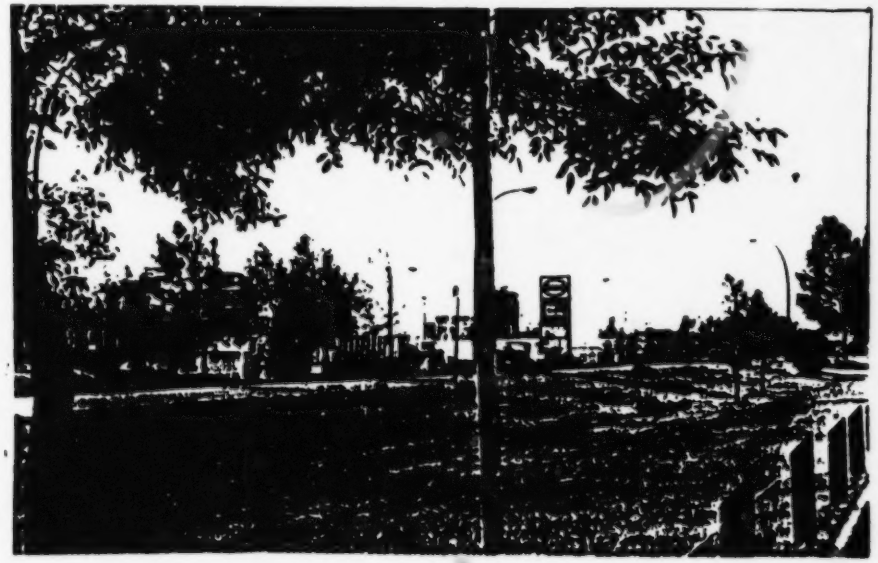
0 1000' 2000'
0 305m 610m



2. MOTEL VILLAGE - MAJOR CHARACTERISTICS AND ISSUES

2.1 EXISTING LAND USES

Motel Village occupies an area of approximately 9.3 hectares (23 acres) at the intersection of two major thoroughfares of the city - 16th Avenue and Crowchild Trail N.W. This triangular area, now known as Motel Village, was originally subdivided in 1951 by City Council for motel use. Initially, the area consisted mostly of trailer-pads and one-storey motels. In the 1960's some of the original lots were re-subdivided to accommodate new motels and expansion to existing buildings. The increase in the number of rooms in Motel Village has kept pace with the city's increasing demand for tourist facilities. Renovation of existing buildings and construction of new buildings such as the Village Park Inn will ensure the area's importance as a motel/hotel node in this part of the city. Currently, there are twelve motels/hotels consisting of approximately 836 units with the majority of businesses being owner-operated. Other ancillary uses, complementing the motel/hotel uses and collectively exerting significant drawing power, are gas stations, restaurants and entertainment activities in this area.



MAP No 8

TITLE EXISTING LAND USE DESIGNATIONS & LAND USE

LEGEND

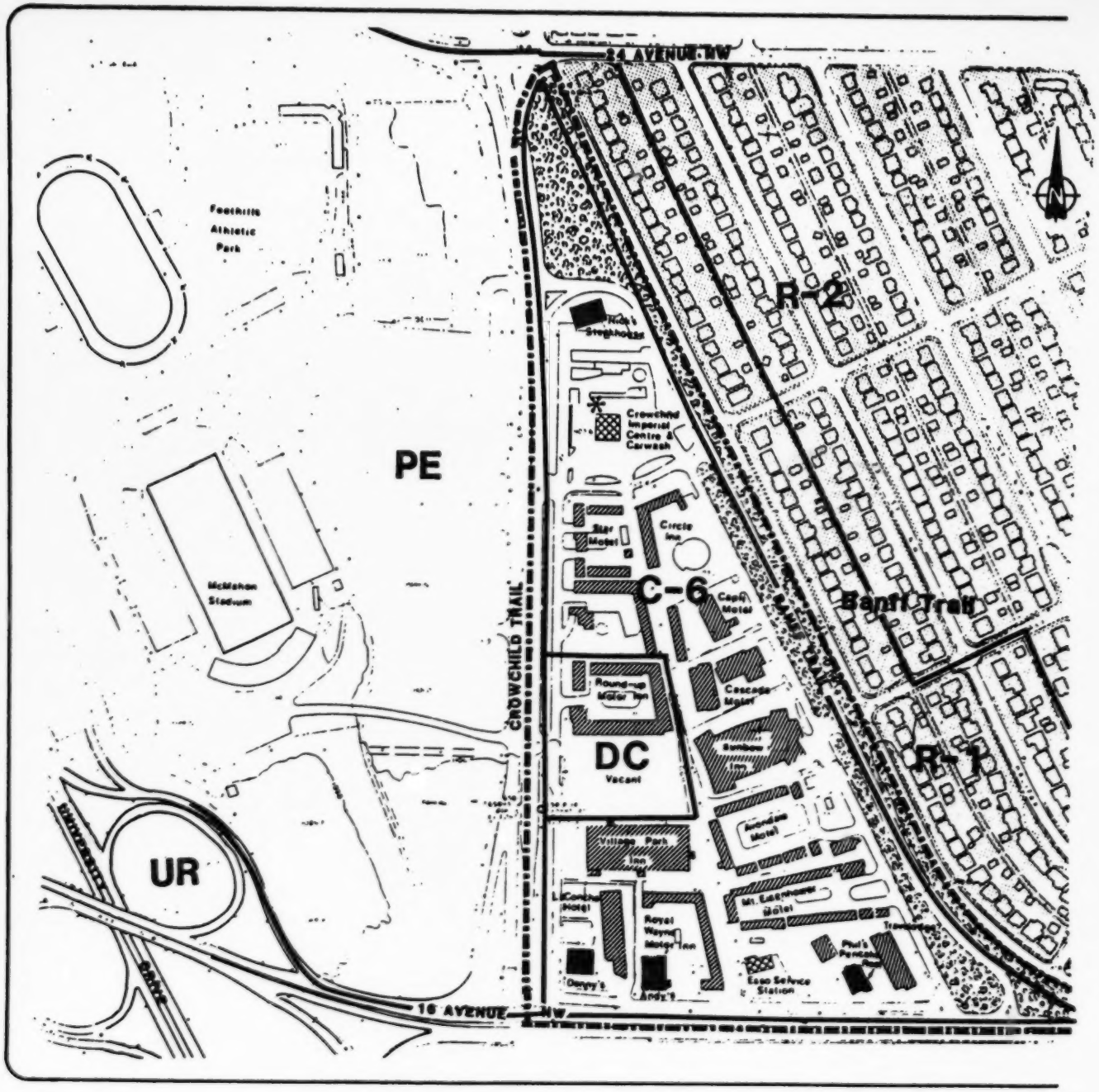
- Restaurants
- Service Stations
- Motels-Hotels
- Low Density Residential
- Buffer Strip/ Green Space
- * Approved for an Automobile Dealership (June 8, 1983)
- Motel Village Boundary

DATE July 1984

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

0 200' 400'
0 63m 122m

20



2.2 LAND USE DESIGNATIONS

Motel Village is currently designated as Highway Commercial District (C-6) with the exception of the office-complex site which is designated Direct Control - (D.C.). Under By-law 8600, the Development Control By-law, Motel Village was designated C-Hwy-1 (Highway Motel District). The uses permitted under C-Hwy-1 were limited to those uses catering to the needs of the motoring public. The existing Calgary Land Use By-law 2P80 combined the Highway Motel District (C-Hwy-1) and Highway Commercial and Industrial District (C-Hwy-2) into one classification, i.e. Highway Commercial District (C-6) and broadened the uses in the original Highway Motel District to include a variety of uses such as retail stores, medical clinics, personal service businesses and offices. The major rules governing this designation include a landscaped minimum front yard of 6 metres and a maximum building height of three storeys except for hotels which may reach 30 metres.

2.3 ISSUES AND CONCERNS

With aging and obsolescence of the existing motels and other factors, e.g. good visual exposure to passing traffic, availability of land, enhanced transit accessibility, the area is facing tremendous pressure to change as evidenced by the number of proposals received and approved by City Council to date. Land consolidations as evidenced from the land ownership pattern and the relatively high turnover of ownerships in the area just before the current economic downturn, reflected property owners' anticipation of Motel Village's viability and continued change in the area.

It is also evident that the trend to diversify the existing tourist function to other uses, particularly office use, has commenced. On June 15, 1982, a redesignation application from "C-6" to "D.C." with an F.A.R. of 4.72 to accommodate a twin-tower office complex, was approved by Council. This project signalled the first major land use change in the area. The 18 and 20-storey complex provides a total floor area of 585,858 square feet of office and retail space to Motel Village. At the meeting of April 18 and 19, 1983, City Council abandoned a proposed by-law to redesignate a parcel of land, .082 hectares (1.98 ac.) in Motel Village from C-6 (Highway Commercial District) to D.C. (Direct Control) to accommodate a triple tower development at an F.A.R.of 3.74 (330,000 sq.ft.). On June 8, 1983,

an automobile dealership project, located at the north end of Motel Village and adjacent to the proposed McMahon L.R.T. Station, was approved by the Calgary Planning Commission under the existing "C-6" land use designation.

Although demand for suburban office space has evaporated since the onset of the economic recession in 1982, it is anticipated that, when the economy recovers, demand for office space in the northwest sector of the city will return and Motel Village would likely become a prime location for office development again.

Should the trend of high density development resume after the recession, the potential of over-building in this area exists. The cumulative effect of redevelopment has not been assessed prior to the approval of individual projects in the area. City Council, at its meeting of April 18 and 19, 1983, instructed the Planning & Building and Transportation Departments to carry out an overall land use study for Motel Village so as to provide a framework for future development.

In addition, Alderman Baxter's motion to prepare an Area Redevelopment Plan for Motel Village and the Banff Trail Community was adopted by City Council on January 20, 1984.

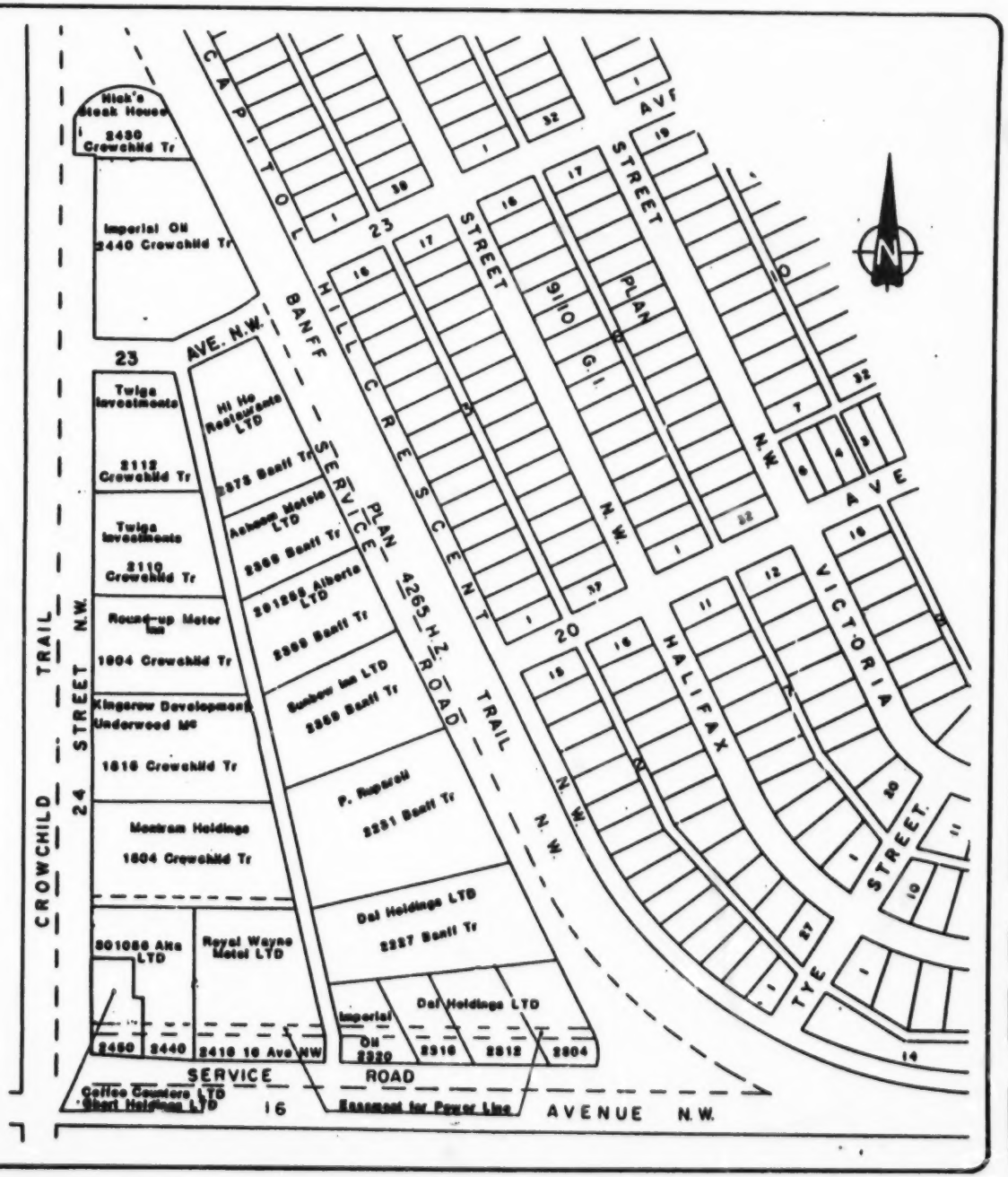
In summary, the major issues are:

a) Whether the traditional motel and hotel function should be maintained; and whether the tourist function is still a viable use in this area in light of its location, existing land use pattern and proximity to the L.R.T. station;

b) If change is desirable, what kind of land use types, density and development guidelines would be appropriate for Motel Village in light of the L.R.T. station and its adjacency to Banff Trail, a low density residential area;

c) What kind of impact would the L.R.T. alignment have on Motel Village in terms of its redevelopment potential; its development pattern; and how would the alignment affect its accessibility; and

d) How can the L.R.T. best be utilized to serve the Motel Village area.



MAP No. 9

TITLE
MOTEL VILLAGE-OWNERSHIP

LEGEND

DATE
July/August 1984

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

0 200' 400'
0 63m 122m

3. PLANNING CONTEXT

3.1 THE NORTH BOW DESIGN BRIEF, 1977

The North Bow Design Brief recommended the retention of the general land use pattern in Banff Trail and also encouraged developing infill family housing and senior citizen housing compatible with the character of the existing community.

3.2 THE CALGARY GENERAL MUNICIPAL PLAN, 1978

The adopted growth strategy of the Calgary General Municipal Plan provided general directions for population growth in the Inner City/Inner Suburb communities. It also established broad policies with regards to housing, transportation network and neighbourhood conservation.

3.3 THE INNER CITY PLAN, 1979

The Inner City Plan designated Banff Trail for "Conservation". The intent of the conservation policy is "to retain the existing character and quality of the area". The Plan had no specific policy recommendations for Motel Village.

3.4 CROWCHILD TRAIL NORTH FUNCTIONAL STUDY (CALTS #53) AND NORTH WEST AREA TRANSIT STUDY (CALTS #56 & #57), 1979

On February 22, 1979, Council reviewed the North West Area Transit Study and Crowchild Trail North Functional Study. A broadly defined corridor for the North West L.R.T. was approved and the Crowchild Trail North Functional Study was adopted for right-of-way protection. In addition, Council approved a policy which put a "freeze" on development and land use change in a triangular parcel of land between Banff Trail and Crowchild Trail N.W., north of 23rd Avenue N.W. in Motel Village. This policy states that:

> "Adopt a policy to be taken account of by the Development Officers, Calgary Planning Commission, and by the Development Appeal Board of not permitting any new development, redevelopment, change of use, or extension of existing building in the area shown in Exhibits 1(a) and 1(b) until Council has adopted a specific right-of-way, station locations, and land use policy for the N.W. L.R.T. Corridor."

3.5 NORTHWEST L.R.T. FUNCTIONAL STUDY (CALTS #73) 1980

On July 15, 1980, Council approved the Northwest L.R.T. Functional Study with amendments (CALTS Series #73) which established the alignment of station locations and park 'n' ride facilities. In addition, City Council also approved Recommendation 4.0 of a Commissioners' Report C 80-38 Re: Northwest L.R.T. Functional Planning Study which stated:

"That, in addition to the Area Redevelopment Plan for the 10 Street/9A Street N.W. area, the Planning Department be directed to develop land use policies and urban design guidelines for the area adjacent to each of the approved station locations."

In addition, Council adopted the recommendations pertaining to the alignment between 14th Street and 19th Street N.W. to be tabled pending negotiations with North Hill Shopping Centre for a 16th Avenue or shopping centre route; and the recommendations pertaining to the alignment in the Banff Trail area to be tabled pending the presentation of an administration report on the costs and impacts of a 16th Avenue to Crowchild Trail alignment.

3.6 REPORT OF MAYOR'S TASK FORCE - NORTHWEST L.R.T., JULY 1981

Although the Northwest L.R.T. alignment was approved in July 1980, considerable community concern was still apparent. In an effort to resolve the various community concerns regarding the Northwest L.R.T. line, the Mayor's Northwest L.R.T. Task Force was formed pursuant to Council's decision of February 16 and 17, 1981. The Task Force was to undertake a review of the North West L.R.T. Functional Study with the aim of developing an alignment that would be technically and economically feasible and have an acceptable level of environmental, land use and community impact.

On October 20, 1981, City Council convened a Non-Statutory Public Hearing on the Mayor's Task Force Report. The Task Force Report was considered and a revised alignment was approved by Council on December 14, 1981. The revised L.R.T. route recommended in the 9A Street Alignment (Stetton On Street Proposal) as the route for L.R.T. from the river to the escarpment through Hillhurst-Sunnyside. The route through S.A.I.T. with a station at the Jubilee Auditorium and proceeding along 16th Avenue on the north side of the North Hill Shopping Centre in the Briar Hill area, and east side of McMahon Stadium in the Banff Trail area, was also adopted.

3.7 THE CITY OF CALGARY TRANSPORTATION SYSTEM BY-LAW 3M82; OCTOBER 1982

On January 11, 1982, City Council gave first reading to the proposed By-law 3M82, and also directed a report to be prepared on the feasibility and costs of Northwest L.R.T. alignment alternatives for the areas between 16th Street N.W. and 24th Avenue N.W. (i.e. the North Hill Shopping Centre and McMahon Stadium areas).

On January 25, Council adopted the motion that Clause C 82-5 of the Commissioners' Report, dated 1982 January 19, Re: Northwest L.R.T. - Feasibility and Costs of Alignment Alternatives for Area II and Area III be amended to show the alternative alignment for Area II (North Hill) as 14th Avenue and for Area III (Banff Trail) as the Banff Trail/1A Highway Modified, and that By-law 3M82 be amended accordingly. This amended alignment was

included in the Transportation System By-law 3M82 after a Statutory Public Hearing of City Council on May 11 and 12, 1982 and ratified by the Provincial Government in October, 1982.

At the May 11th and 12th Public Hearing regarding the City of Calgary Transportation By-law 3M82, the Banff Trail Community Association's consultant was unavailable for questioning, Council passed the motion "that the consultant for the Banff Trail Community be given the opportunity to defend his original submission as presented at this Public Hearing and that funding for such a report not exceed $5,000".

3.8 NORTHWEST L.R.T. BANFF TRAIL VS. CROWCHILD TRAIL ALIGNMENT ALTERNATIVES, by Damas/Smith

On June 20, 1983, Council considered Commissioners' Report C 83-48 Re: Damas & Smith Report on Northwest L.R.T. Alternatives at Motel Village and passed a motion to accept the Damas & Smith Crowchild L.R.T. route as "an active and viable alternative to the 1A route and further, that this proposal be retained for future consideration when funding is being sought for the N.W. leg."

3.9 AMENDMENT NO. 82/208 (BY-LAW NO. 36Z83)

City Council, at its meeting of April 18 and 19, 1983, amended and approved Recommendation No. 2 as contained in the Planning Commission Report dated March 16, 1983, Re: Amendment No. 82/208 (By-law No. 36Z83) to the Land Use By-law as follows:

"2. The Commission recommended to City Council that they instruct the Planning and Transportation Departments to carry out a study of the Motel Village within six (6) months and that the Briar Hill Community Association, the Banff Trail Community Association and the McMahon Stadium Society also be circulated with any proposals pertaining to this site."

3.10 MOTEL VILLAGE LAND USE STUDY - STATUS REPORT, 1983

The "Motel Village Land Use Study - Status Report" was presented to the Calgary Planning Commission during an in-camera meeting on July 20, 1983. The Report indicated the major findings and informed Council that completion of the study would be delayed to the following year so as to include an investigation of the Damas/Smith alignment.

3.11 NOTICE OF MOTION OF ALDERMAN T. BAXTER

On January 20, 1984, City Council dealt with the Planning & Building Department's budget and concurred with the following Commissioners' recommendations:

"That Council adopt Alderman Baxter's resolution:

1. that the Land Use study presently underway be extended to include the Banff Trail community and be incorporated into an Area Redevelopment Plan for the area; and

2. that as part of the preparation of the A.R.P. a study of the implications of the two alternative L.R.T. alignments proposed for the area be completed and brought to Council for direction, as to which alignment should be incorporated into the A.R.P."

3.12 BY-LAW 8P84, AMENDMENTS TO THE CALGARY GENERAL MUNICIPAL PLAN, (SEPTEMBER, 1984)

On September 10, 1984, in response to the need to more clearly establish the City's land use policies and objectives related to the light rail transit system, Council approved with amendments, the report of the Calgary Planning Commission, dated 1984, March 21, Re: L.R.T. Land Use Districts and Amendments to the Calgary General Municipal Plan, and By-law 8P84. In addition, Council also adopted the following policies to be amended into the Calgary General Municipal Plan:

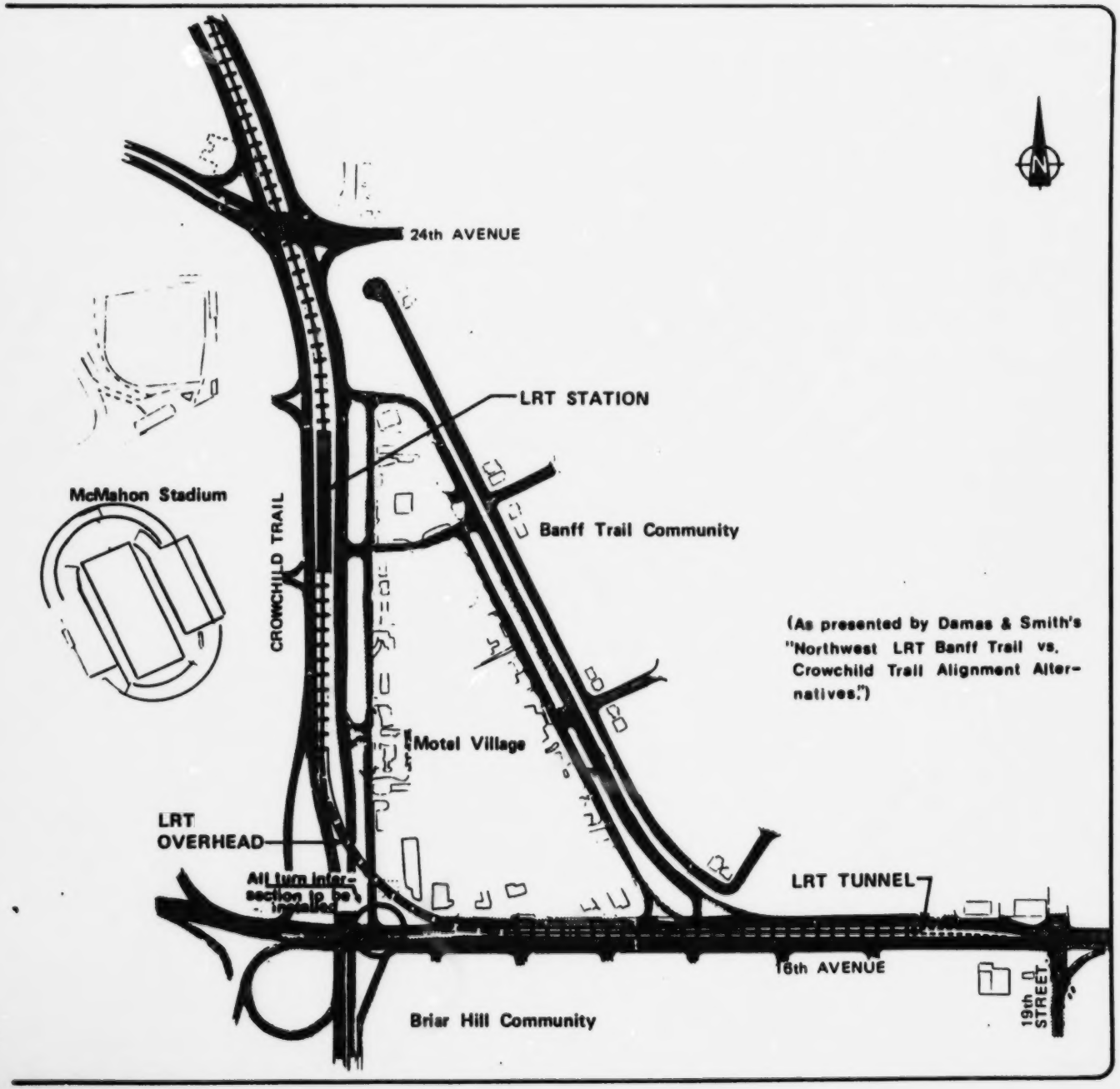
Amended Policies (T.10 and H.25) - Subject to amended policy T.14 increase the density of residential development adjacent to L.R.T. stations and major bus routes where local community conditions warrant.

Amended Policies (T.12 & E.A.9) - Encourage new suburban employment near L.R.T. stations and major bus routes where local conditions warrant.

Amended Policy (T.14) - Development in L.R.T. station areas will be of a type, design and intensity compatible with adjacent communities and supportive of the transit system.

New policy (T.21A) - Locate light rail stations so as to optimize service to communities and potential transit supportive development.

New policy (T.21B) - Avoid causing unnecessary speculation and instability in communities abutting L.R.T. stations by providing the public with an early indication of Council's intention with respect to the level of development opportunity through appropriate planning processes including preparation of station area plans and/or area redevelopment plans and area structure plans.



MAP No. 10

TITLE "DAMAS & SMITH" LRT ALIGNMENT ALTERNATIVE STAGE 1

LEGEND

DATE October 1984

THE CITY OF CALGARY
PLANNING & BUILDING DEPARTMENT

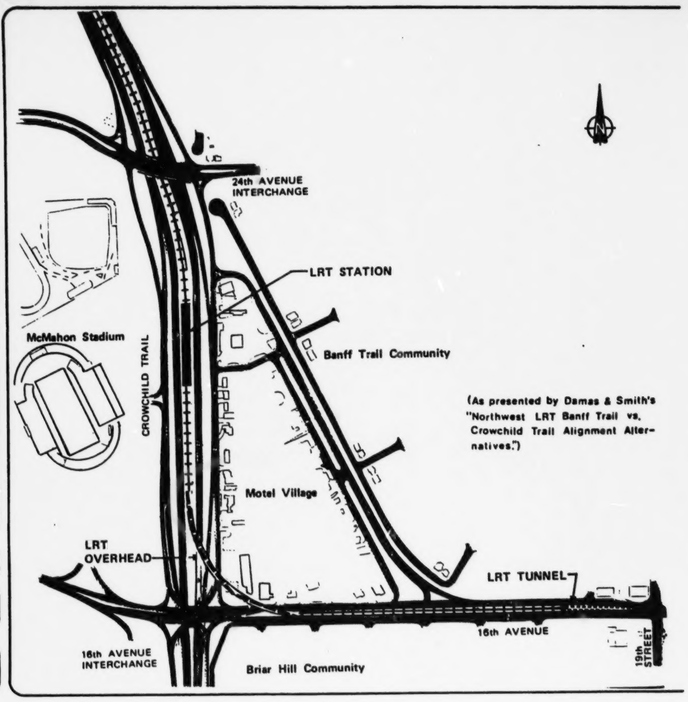
MAP No 11

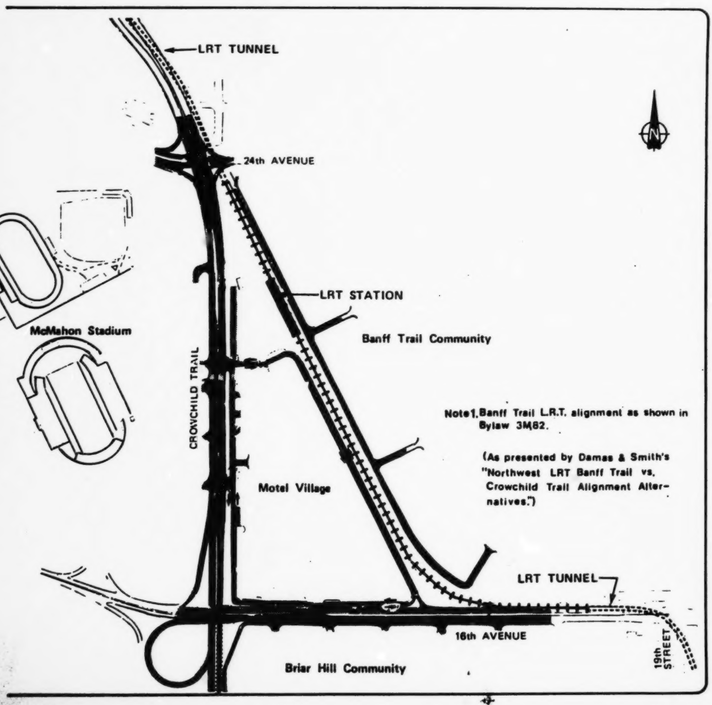
TITLE "DAMAS & SMITH" LRT ALIGNMENT ALTERNATIVE STAGE 2

LEGEND

DATE October 1984

THE CITY OF CALGARY PLANNING & BUILDING DEPARTMENT





MAP No. 12

TITLE BANFF TRAIL LRT ALIGNMENT ALTERNATIVE STAGE 1

LEGEND

DATE October 1984

THE CITY OF CALGARY PLANNING & BUILDING DEPARTMENT

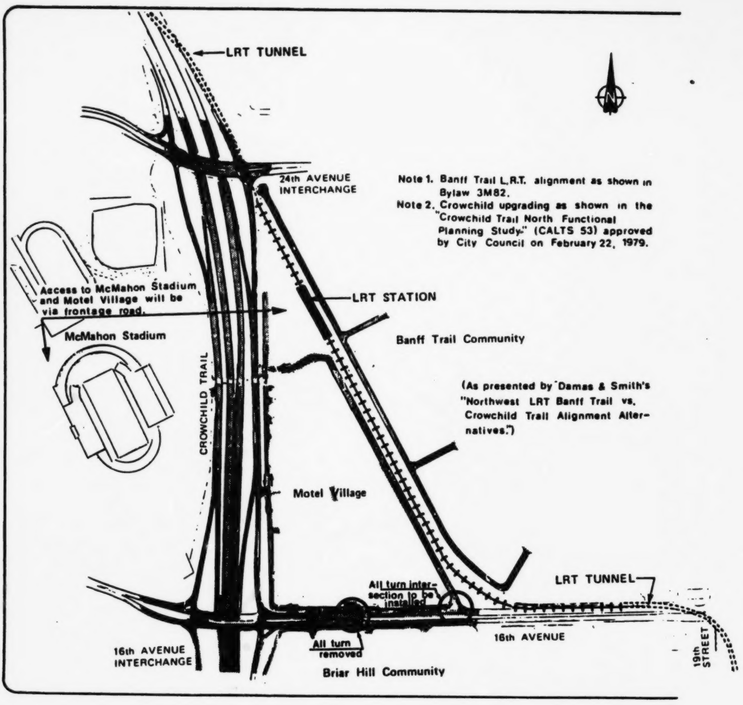
MAP No 13

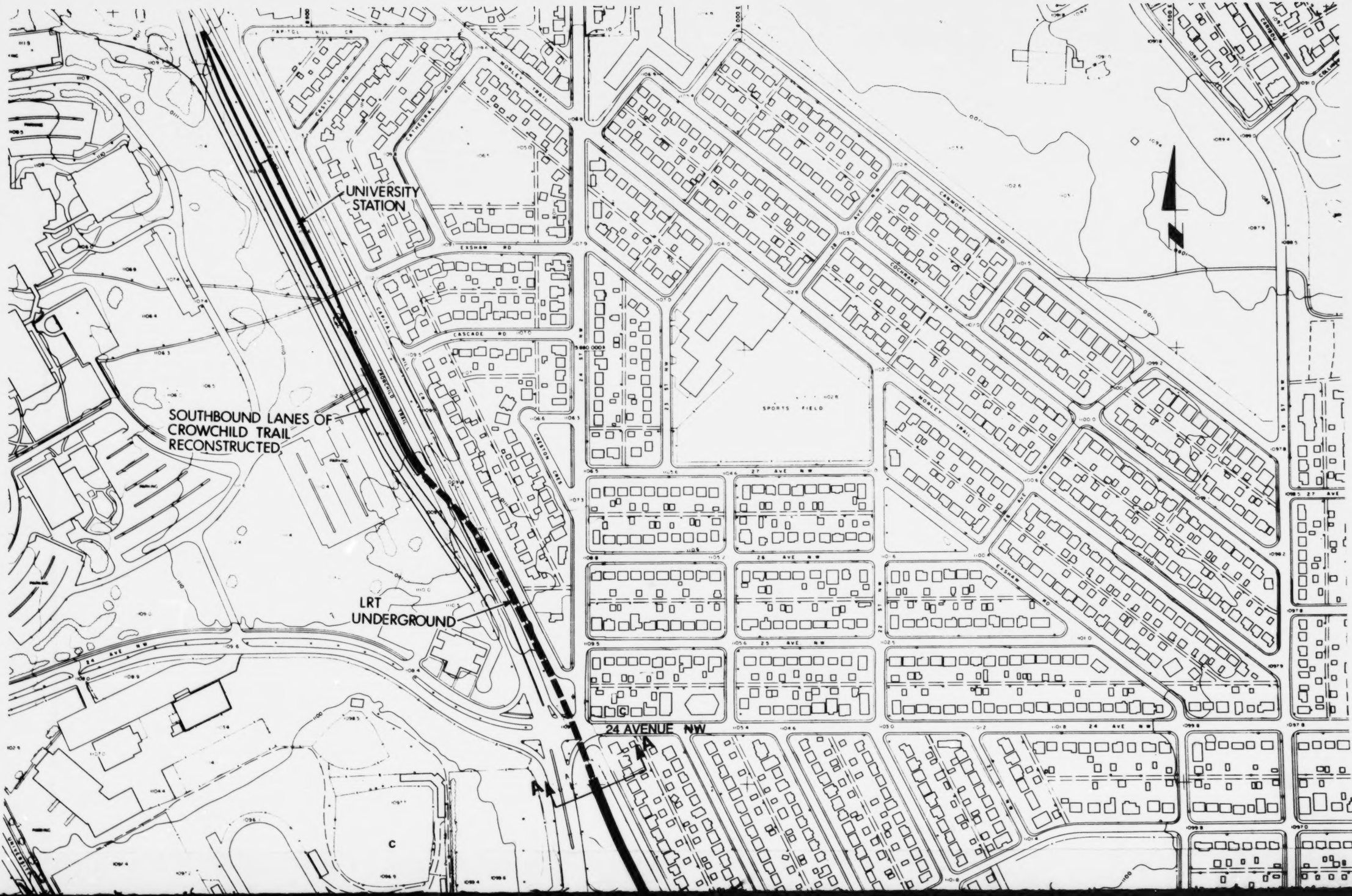
TITLE BANFF TRAIL LRT ALIGNMENT ALTERNATIVE STAGE 2

LEGEND

DATE October 1984

THE CITY OF CALGARY PLANNING & BUILDING DEPARTMENT


LRT TUNNEL
24th AVENUE INTERCHANGE
Note 1. Banff Trail L.R.T. alignment as shown in Bylaw 3M82.
Note 2. Crowchild upgrading as shown in the "Crowchild Trail North Functional Planning Study" (CALTS 53) approved by City Council on February 22, 1979.
Access to McMahon Stadium and Motel Village will be via frontage road.
LRT STATION
McMahon Stadium
Banff Trail Community
CROWCHILD TRAIL
(As presented by Damas & Smith's "Northwest LRT Banff Trail vs. Crowchild Trail Alignment Alternatives.")
Motel Village
All turn intersection to be installed
LRT TUNNEL
All turn removed
16th AVENUE
16th AVENUE INTERCHANGE
19th STREET
Briar Hill Community


UNIVERSITY STATION
SOUTHBOUND LANES OF CROWCHILD TRAIL RECONSTRUCTED
LRT UNDERGROUND
24 AVENUE NW
CROWCHILD TRAIL
CASCADE RD
ERSHAW RD
CAMPBELL RD
CASTLE RD
CAPITOL HILL CR
CAPITAL HILL CRES
CRESTON CRES
CAMMORE RD
COCHRANE RD
MORLEY TRAIL
SPORTS FIELD
A
A
C
C

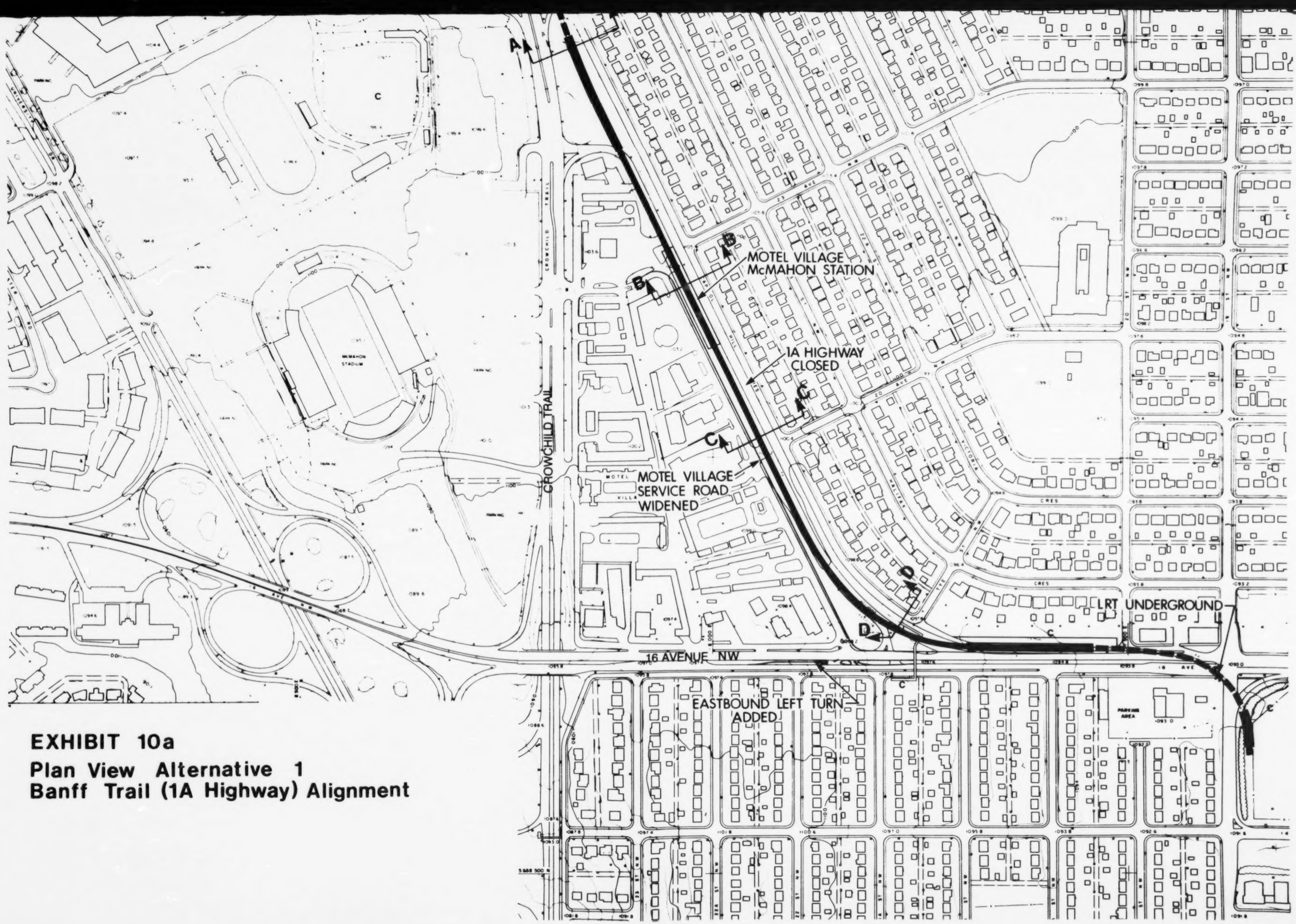
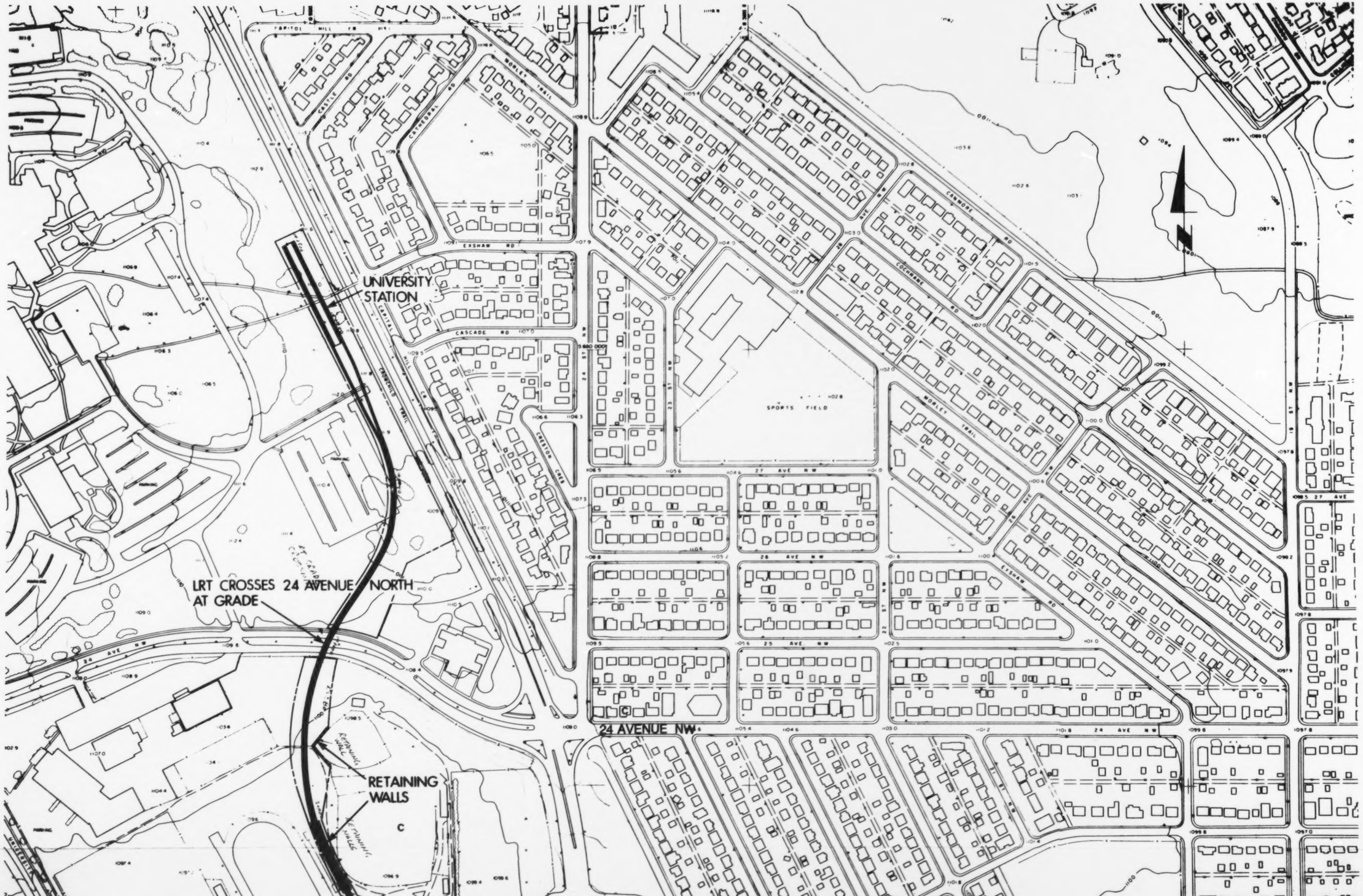


EXHIBIT 10a

Plan View Alternative 1
Banff Trail (1A Highway) Alignment


UNIVERSITY STATION
LRT CROSSES 24 AVENUE NORTH AT GRADE
RETAINING WALLS
24 AVENUE NW
SPORTS FIELD
CASMORE RD
COCHRANE RD
CASCADE RD
ESHAW RD
CAPITOL HILL CR
CAPITOL HILL RD
CASTLE RD
CATHEDRAL RD
MORLEY TRAIL
CRESTON CRES
26 AVE NW
25 AVE NW
24 AVE NW

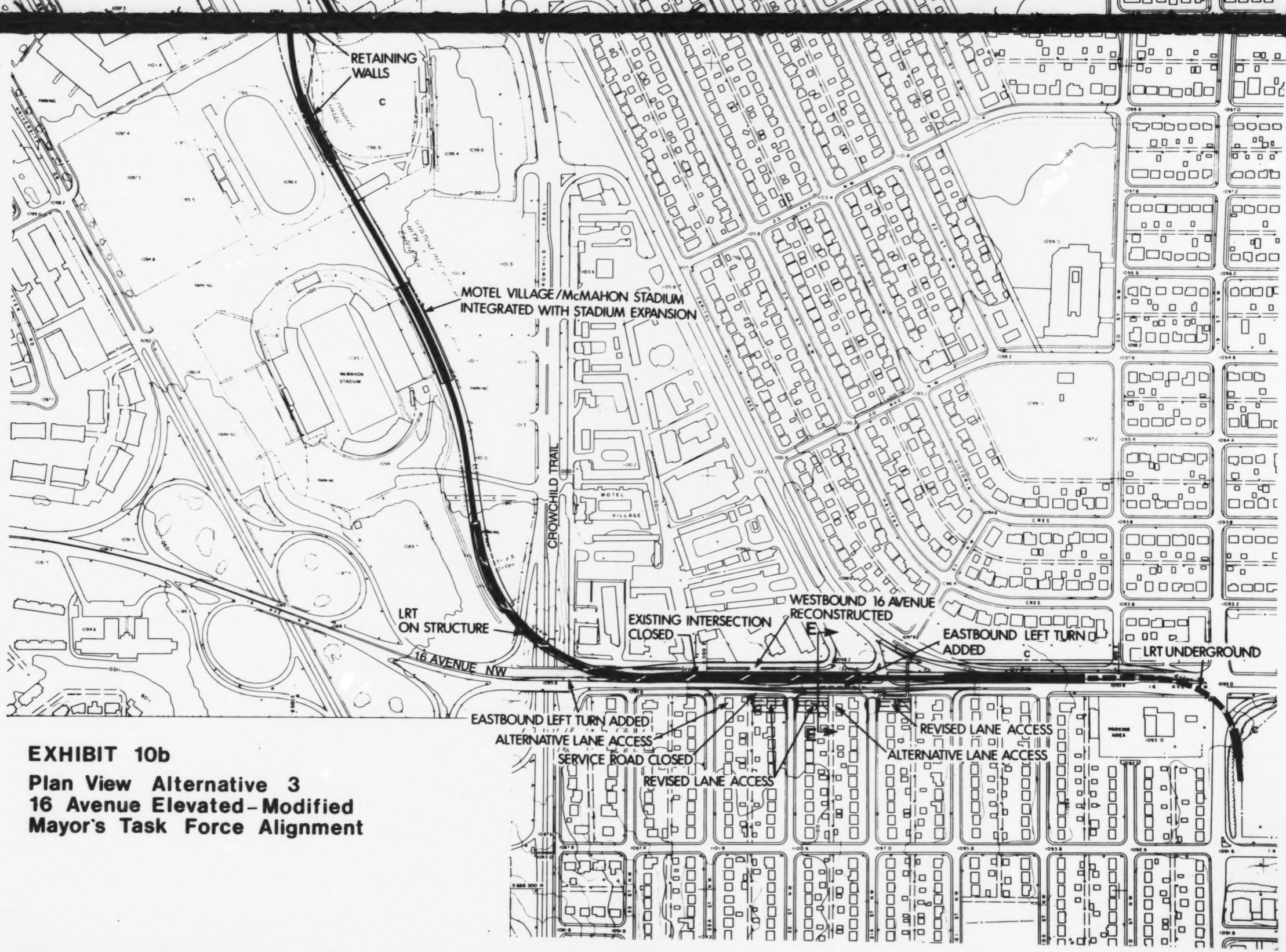


EXHIBIT 10b

Plan View Alternative 3
16 Avenue Elevated - Modified
Mayor's Task Force Alignment

UNIVERSITY STATION
CAPITOL HILL CR
KASTLE RD
CATHEDRAL RD
MORLEY TRAIL
EXSHAW RD
CENTRAL HILL CR
CASCADE RD
CROWCHILD TRAIL
CARMORE RD
COCHRANE RD
SPORTS FIELD
24 ST. CLOSED
24 AVENUE NW
LRT CROSSES 24 AVE. AT GRADE
CROWCHILD TRAIL RECONSTRUCTED

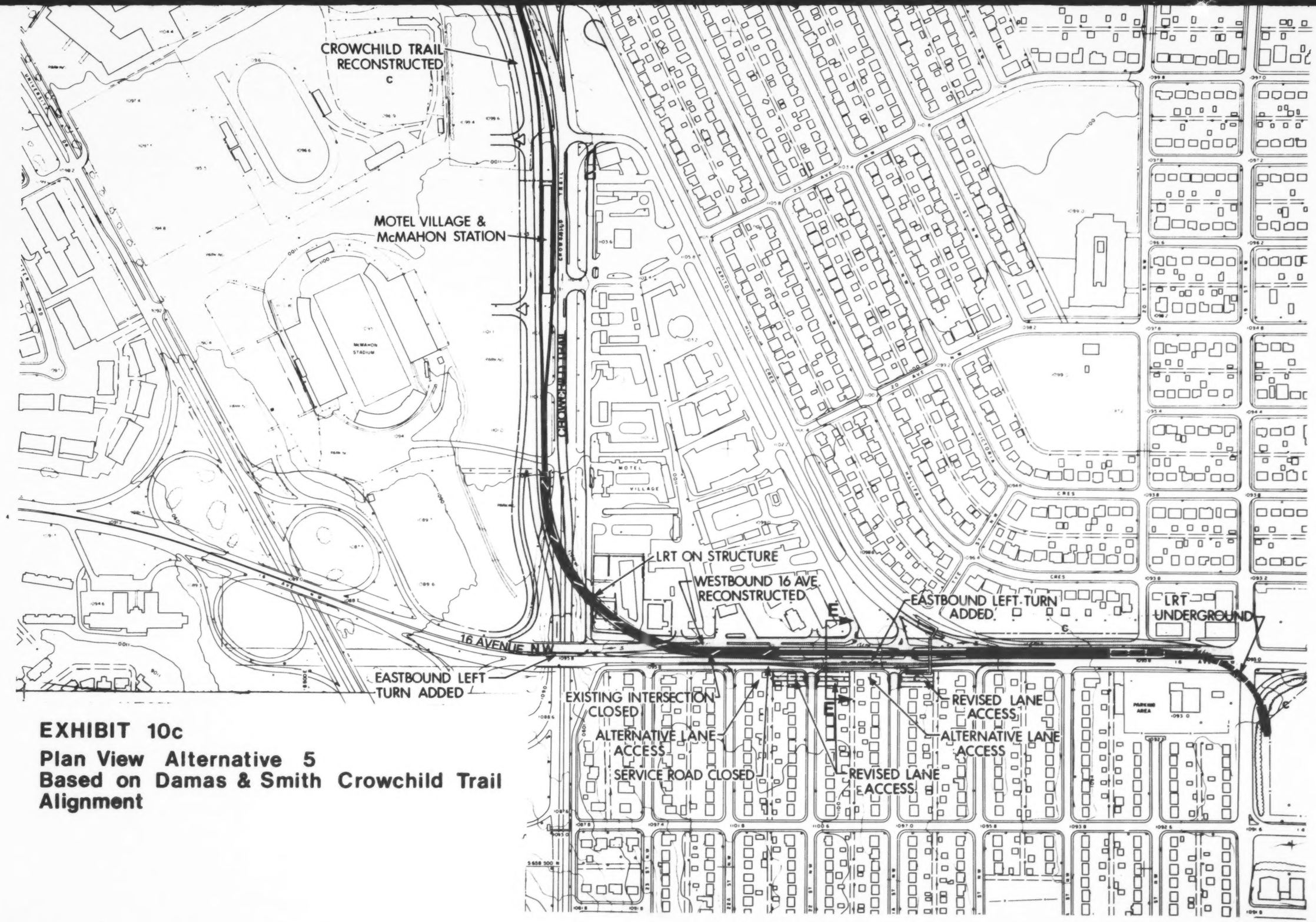


EXHIBIT 10c

Plan View Alternative 5
Based on Damas & Smith Crowchild Trail Alignment